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ABSTRACT

In Wisconsin, different agencies administer vocational education on the secondary and postsecondary levels. Students and educators at both levels have reported substantial duplication of course content, texts, reference materials, equipment, and instructional processes. Therefore, a project was designed to expand and improve articulation (that is, communication, cooperation, and coordination of curriculum) between the two levels. A major contribution of the project was to plan and conduct a series of district workshops for vocational educators designed to upgrade staff capabilities to expand and improve articulation. Approximately 800 educators participated in the workshops. An evaluation questionnaire was randomly distributed to about 100 participants, 86% of whom responded. Responses were positive and supportive of the articulation project and workshops, and most participants indicated they wanted followup workshops. It was concluded that the articulation workshops did help upgrade staff capabilities. Among the recommendations were suggestions that articulation efforts be both horizontal and vertical in nature, that they encompass K-16 grade levels, and that they be expanded beyond just curriculum articulation. Based on responses from workshop participants and on the observations of project staff, a schematic model was generated to provide a guideline for future program implementation. (LMS)

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ED140077

Final Report

Project No. O.E.G. 5-74-0145

Articulation of Vocational Education Curriculum Between Secondary and Post-Secondary Levels in Wisconsin

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Further appreciation is extended to all participating members of the statewide Ad Hoc Advisory Committee for their time and efforts in providing project development guidelines.

CHAPTER I

INTRODUCTION

Summary

This project was designed to expand and improve articulation of vocational education programs between the secondary and post-secondary institutional levels.

In essence, the primary objective was to specifically define the constraints and limitations of vertical articulation. In respect to the content of this report, a specific definition of articulation is to provide a continuation of communications, cooperation and coordination in the interest of providing a smooth transition for the continuing vocational student. This continuation should be accomplished at the least cost to the individual so involved both in terms of time and money, and the elimination of duplication of curriculum content.

A major contribution of this project was to plan and conduct and/or assist in a series of district workshops. Principle outcomes of these workshops were to cultivate universal understandings throughout the districts as well as to provide curriculum development in-service situations.

Recommendations and conclusions developed from these workshops will be later abstracted and disseminated statewide.

A survey instrument was distributed to random participants in the various workshops with the intention of ascertaining participant evaluation of workshop content. As a result of observations made by project staff throughout the project year, and from input provided by participants in the questionnaire, a schematic model was generated to provide a guideline for future program implementation.

The intent of the model is not to provide a specific routine for implementation, but merely a global approach for developmental considerations at the discretion of each individual district. The communications of experts extended and realized as a result of this project have been disseminated on a verbal basis at approximately 50 separate workshops held throughout the state in this past project year. It is further anticipated that results that have been reduced to this final report would also be distributed on a statewide basis.

Background and Significance

In September, 1974, the University of Wisconsin-Stout, in conjunction with the Wisconsin Board of Vocational, Technical and Adult Education received a $50,000 grant under part F EPDA to further expand and improve articulation of secondary and post-secondary vocational-technical programs. The project focused on the importance of curriculum articulation, that is, communication, cooperation and coordination of curriculum between vocational educators at the secondary and post-secondary levels, especially as it affects students making the transition between the two.

As a result of a recommendation from the project multi-agency ad hoc committee, the project staff attended over 50 meetings held in the CESA districts for secondary school and VTAE district administrators to introduce them to the project objectives and proposed activities and to solicit their support for its implementation. The project was designed to support involvement of secondary and post-secondary educators in a series of three sets of regional curriculum development workshops to be conducted in each of the 16 VTAE district areas.

Following the CESA meetings, plans were immediately begun to hold workshops in each VTAE district. During the 1974-75 school year over 800 secondary and post-secondary educators were involved in workshops conducted across the state.

The research techniques, models, suggestions for application and transport of process and product, and other information reported herein, should be of value to those concerned and interested in furthering articulation efforts in the state.

Statement of the Problem

In the 1974-75 school year, approximately 50,000 students enrolled in the post-secondary VTAE technical institutes in the state of Wisconsin. Several thousand of these new enrollees had been enrolled in different vocational education courses at the secondary level in the various curriculum areas of Agriculture, Business, Office, Distributive, Home Economics, Health Occupations, Trades, Industry and other service areas. Many courses and programs in the same broad curriculum areas are offered at the post-secondary level. Students and educators, both on the secondary and post-secondary level, have reported substantial duplication of course content, text, reference materials, equipment and instructional processes. Most students enroll with various areas and levels of occupational interest, aptitudes and competencies.

The purpose of this study is to expand and improve articulation of secondary and post-secondary vocational education programs within the state of Wisconsin. There is evidence to suggest that through a process of cooparative and homogenized articulation efforts, the post-secondary

vocational education curriculum would be strengthened, in that elements learned on secondary levels would be eliminated or restructured into other courses needed by students. Consequently, allowing many students to be placed in the world of work at an earlier date through advanced placement at the post-secondary level and an individual competency based curriculum which would provide employers with a worker who would have the skills and knowledge to perform on the job efficiently and effectively.

Rationale

In order to provide maximization of benefit to students, articulation of curriculum must occur in the classroom and in the instructional process through administrative, supervisory and instructional staff. Respective local and state efforts to improve articulation are progressing, but these efforts are limited in scope and in depth. There is a need to stimulate and upgrade staff capabilities, to expand and improve the articulation of vocational education programs, activities, and services in the state. Articulation has been identified as the number one priority in the final report of a conference and survey by the statewide EPDA Advisory Committee. Articulation as used here refers to the interrelation of different levels of education (such as elementary, secondary, and higher education) for ensuring advancement of learning.

In Wisconsin, most of the public vocational education is delivered to local communities throughout two separate agencies. Vocational education on the secondary level is administered through the State Department of Public Instruction (DPI), 19 Cooperative Educational Service Agencies (CESA) and over 465 Local Educational Agencies (LEA).

Vocational education on the post-secondary level is administered to the Wisconsin Board of Vocational, Technical and Adult Education (WBVTAE) and the 16 local VTAE districts. In this "dual" delivery system, articulation is a major concern among vocational educators.

Curriculum articulation needs are not the same in all vocational education disciplines, nor are they the same in all Vocational, Technical and Adult Education Districts and/or Local Education Agencies. It is towards this end of diversification within local educational needs that the effort of providing articulated curriculum is committed.

Major Project Objectives

The principle objectives identified for this Articulation Project are as follows:

1. Upgrade staff capabilities to expand and improve articulation of secondary and post-secondary vocational education.
2. Identify taxonomies of competencies in selected occupational education areas appropriate to secondary and post-secondary levels.
3. Provide in-service education for selected post-secondary vocational educators regarding curriculum competency requirements and needs.
4. Provide in-service education for selected secondary level vocational educators regarding curriculum competencies, offerings and needs.
5. Provide in-service education for secondary and post-secondary educators upgrading competencies in diagnosing and analyzing curriculum articulation needs for selected secondary and post-secondary vocational education programs.
6. Revise field tests and validate selected articulated secondary and post-secondary vocational education programs.

7. Develop a model and field test strategies and framework for achieving articulation of selected secondary and post-secondary vocational education programs.
8. Develop strategies for implementing advanced status policies on the post-secondary VTAE levels.
9. Evaluate the model developed for articulation and make recommendations and provide procedures to implement transportability of the model throughout the state of Wisconsin.

Definition of Terms

Advisory Committee: A group of qualified interested people selected by either the local educational agency or the VTAE district administration to advise on the program. This committee serves as a sounding board and resource unit for planning and operating procedures for a specific program. The committee may be asked advice on public relations, curriculum content, equipment, student selection evaluation of program and various anciliary activities.

Affective Learning: Those learnings which involve feelings and personal judgments. Opinions, attitudes and values about knowledge needed and behaviors demonstrated during the performance of job tasks.

Articulation: The process of accommodating a smooth transfer and progression of students from one level of educational offerings to the next higher level. It may be considered a vehicle that insures continuity within the educative process, efficient development of student's ability and with maximum utilization of available resources. Such transfer should be implemented at a level of less cost to the student in terms of time, money and the elimination of duplication and curriculum content.

Articulation Horizontal: Relationships between programs, courses or activities which exist at any one education competency level and provide a coordinated educational program for the student.

Articulation Vertical: Relationships which exist between institutions, programs, courses or activities and provide a coordinated program for a student moving from one education competency level to the next.

Behavioral Objectives: A student performance task that describes anticipated student behavior that may be objectively measured in respect to the questions of individual performances.

Capstone Course: The final course in a sequence, generally a senior year offering which leads to the development of employable skills, attitudes and characteristics. May lead students into post-high school vocational-technical programs where career objectives require training beyond high school.

Career Education: A continuous and sequential series of learning experiences through which each person potentially acquires certain competencies permitting him the flexibility to fill the personal desires and needs he seeks in an occupation, a calling, employment or pursuit.

Cooperative Educational Service Agency (C.E.S.A.): An interim educational agency between the local public school district and the State Department of Public Instruction. A basic philosophic concept for a C.E.S.A. is to provide services to local school districts that might not otherwise be available to such districts other than on an aggregate basis. (See the Agency Map for geographic delineations. Appendix A.)

Cognitive Learning: Those learnings which refer to the knowledge students acquire prior to being able to perform job tasks.

Competency: Satisfactory performance of one or more tasks by the student. Satisfactory performance depends upon psychomotor, affective and cognitive achievement which collectively are measured when the student is evaluated as to his/her ability to perform a specified job related task(s) under certain specified conditions to a specified level of performance.

Competency-Based Education: A program in which the tasks that students are expected to be able to perform along with supporting effective and/or cognitive behavior necessary for task performance are made public to students in advance of instruction. Students are responsible for demonstrating that they have attained each competency be performing the task at a specified level of performance and under the conditions designated.

Component: A group of related units which complement each other and form the basis for which might become the courses in a more traditional program.

Cooperative Education: A method of teaching in which students who enroll in a Capstone Course for one or more hours per day and are placed on training stations for on-the-job instruction related to the career objectives and the classroom instructions. Students are rotated through a series of planned, meaningful job experiences following a training agreement signed by the employer, the school, parent and students. Students are paid for their work, are evaluated and are provided with credit towards graduation.

Criterion Level: The level of performance which represents acceptable evidence that a student has learned a task.

Curriculum: All activities which are planned, carried out and/or evaluated by the instructor of an occupation for the purpose of teaching students to be workers on-the-job.

DACUM: A process of developing a curriculum model which describes and sequences the requirements of an occupational area of training in terms of skills required.

Department of Public Instruction (D.P.I.): Wisconsin State Department of Public Instruction. A state agency designed to provide administrative and consultative services to public schools, grades K-12.

Enabling Objectives: A statement of the knowledges, skills and/or attitudes which a learner must have if he/she is to reach a particular terminal performance objective. Enabling objectives which are necessary for a student to obtain before the terminal performance objective can be reached are contained within or identified with the same module as the terminal performance objective(s).

Entry Level: A level of employment considered to be rudimentary in nature and necessitating further training.

Local Education Association (L.E.A.): A legal educational agency generally defined as a public school district either common integrated, consolidated or a city school system.

Local Vocational Education Coordinator (L.V.E.C.): A public school vocational education staff member who has overall responsibilities for a vocational education program. This person works with all departments relating to the vocational education program, conducts or assists in inservice programs, helps establish and utilize steering or advisory committees, liaisons with community resources including the employment service, the vocational-technical schools, labor and employer groups, etc.

Mastery: A level of performance or achievement which consistantly meets occupational standards or standards set by vocational teachers responsible for a specific vocational program. A capability of performing a task satisfactorily without supervision or assistance and with a high degree of speed and quality.

Model: A comprehensive management system or process designed to provide program organization, planning, implementation and evaluation guidelines. Groupings of several program areas which are sufficient similar to be grouped together. The following occupational clusters have been suggested by the U.S. Office of Education: Agri-business and Natural Resources, Business and Office Communications and Media, Construction, Consumer Homemaking, Environment, Fine Arts and Humanities, Health, Hospitality and Recreation, Manufacturing, Marketing and Distribution, Marine Science, Personal Services and Public Service Transportation.

Personalized Instruction: A program in which different learning alternatives are made available to individual students on the basis of an evaluation of their interests, needs or preferences for learning in a certain way. The available alternative may be selected for the student or he/she may be permitted to make the selection.

Post-Secondary Coordinator: A vocational, technical and adult education's staff member who has overall responsibilities for vocational education program. This person works with all departments relating to the vocational program, conducts or assists in in-service programs, helps establish and utilize steering or advisory committees, liaisons with community resources including the employment service, local secondary schools, labor and employer groups and miscellaneous agencies.

Post-Test: A performance examination taken by the student at the end of a course or program to determine whether or not he/she is capable of performing the tasks specified in the terminal performance objective at the mastery level.

Pre-requisite: Knowledge, skills or behaviors which students are expected to demonstrate prior to beginning work on a particular course or program.

Pre-Test: A performance examination taken by the student at the beginning of a course or prior to it designed to measure knowledge, skills and behaviors in respect to the terminal objectives of the course or program. The pre-test provides the learner an opportunity to diagnose what he/she knows and then decide whether or not to select learning activities before attempting to pass the post-test.

Psychomotor Learning: Those learnings which require physical performance by the student. Such learnings are usually acquired by practicing a skill oriented task.

Student Profile: An abbreviated description of competency proficiencies of individual students indicating degree of task achievement in respect to skill, knowledge and attitude.

Task: A group of work activities which are associated for a common purpose or end and those work activities, taken collectively, have meaning or use to the job. A task statement qualifies a definite beginning and end of the task.

Technical Education: A phase or level of vocational education properly supported by general education courses for occupations in which success depends largely upon technical information and understanding of the laws and principles of mathematics, science and technology relevant to modern design, production distribution and services.

Terminal Performance Objective: A statement of job related tasks which the learners is to be able to perform in order to be considered a competent worker on the job. Contained in the terminal performance objective is (a) a statement performance which lets a student know how he/she is to show (demonstrate) what he/she has learned; (b) a statement of the conditions which will surrond the students performance; (c) a statement of the mental level of acceptable performance.

Vocational Education: That education which is designed to prepare individuals for initial entrance into and advancement within occupations or groups of related occupations requiring a high portion of manipulative skills.

Vocational, Technical and Adult Education District (VTAE): Area post-secondary vocational, technical and adult school districts legislated and designed to provide a wide-range of occupational training programs and services. (See the District Map for geographic delineations. Appendix B.

Wisconsin Board of Vocational, Technical and Adult Education (WBVTAE): A state educational agency designed to provide administrative and consultative services to the sixteen state post-secondary vocational, technical and adult districts.

Work Experience: A program whereby students are permitted to work as part of their general education. Students in this program are not required to enroll in a vocational education class related to the job situation but may be given pre-vocational instruction as part of the total program; the supervision of students on the job is generally minimal compared to that of a co-op program. Work experience programs are not reimbursable under the Vocational Education Act.

Work Study: A program of vocational education in which students who are in need of earnings to remain in school are employed by non-profitable organizations. Students must be enrolled in approval vocational education courses in their school but their work need not be related to their career objectives or their classroom work. These programs are reimbursable under a special provision in the vocational education amendments.

CHAPTER II

REVIEW OF THE LITERATURE

The principal objective of this section of this final report is to provide a reference source of previous research relating to articulation of curriculum, and which will simultaneously lend itself to transportability and adaptation between educational institutions and professional educators throughout the state of Wisconsin.

Due to a highly divergent variety of educational systems and subsystems that are inherently associated with curriculum articulation, this review will provide a cursory analysis of certain pre-selected systems and/or subsystems.

To assist the reader in locating specific reference sources, this review has been stratified into six systems and/or subsystems. These catagories are as follows:

1. Articulation (General): These references specifically address curriculum articulation problems, strategies for implementation, etc.
2. Career Education: Resources addressing the respective interrelationships between career development and curriculum articulation needs.
3. Competency-based Instruction: Includes references identified with task analysis, and systems approach based upon performance tasks in respect to curriculum articulation.
4. Cluster Approach: Provides resources germaine to curriculum articulation based upon curriculum content relevant to occupational clusters as opposed to specifically identified performance tasks.

5. Course Outlines: Provides only a nominal sampling of course outlines and curriculum guides. The reader is encouraged to implement resource searches based upon more specific discriptors for a more comprehensive review.

6. Curriculum Development: Providing only an abbreviated resource for approaches to generalized curriculum development as related to articulation. Again, the reader is reminded to search on the basis of more specific discriptors for a more comprehensive resource listing.

Practically all the resources included in this review relate to one or more of the systems and subsystems identified herein. However, they have been categorized on the basis of the major content or issues, found within the respective resource.

Articulation (General)

The literature found in this review provides research documentation and support for the notion that orientation of curriculum is accommodated best through efforts towards communication, cooperation and coordination.

The paramount importance of inter-institutional communications is addressed by Burnett (7) in his analysis of "Two Year Institutions in American Higher Education" when he states that communication and understanding of existing programs and requirements are necessary towards the eventual implementation of curriculum articulation. Further stating that articulation should consider more than courses and credits. It should also be concerned with the total growth and development of the individual.

Communications is further addressed by Gillie (23) in his report on an annual conference on Post-Secondary Occupational Education in Pennsylvania. Major objectives of the conference alluded to providing participants with information that would better enable the identification of elements and approaches in curriculum articulation and to provide opportunities for exchanging ideas on topics associated with articulation.

Further support for effective communications comes from Zane (62) from a study on collaborative roles, when he addresses the need for a more global network of communications on a local, regional and national basis.

Endorsing and further supporting Zanes comments are those of Milliken (42) in her report on the Georgia Career Development Conference. Results of this conference point out a need for a centralized information center for sharing information on ideas and materials between states and among different specialty areas.

A report of the committee on Junior College curriculum by the American Accounting Association (2) stresses the importance of cooperation in conjunction with effective communications by identifying a major objective of the conference as providing a means of sustaining cooperation and communications between faculties of two-year institutions and faculties of other schools to which, and from which, their students commonly transfer.

In his article, an Articulation of Post-secondary Programs in Occupational Education, Moore et. al. (44) states that the best place to begin articulation practices would be in the area of joint cooperative efforts toward curriculum development. He further addresses the notion of joint utilization of facilities and equipment.

Kintzer (30) in his article found in the Junior College Research Review, stresses the importance of secondary and two year institutions cooperatively sharing in the responsibility of building and maintaining team relationships in articulating downward through the high school.

One provision accommodating coordination efforts would be that involved with teacher education and the question of what role should vocational-technical and junior college institutional levels play in the area of occupational teacher education? Feirer et. al. (18) in their analysis provide a prototyfic model to meet this need.

The necessity of inter-agency planning for an articulated program implementation is reenforced by Markowitz (39) in her report on articulated nursing curriculums and the impact of advisory councils and committees to supplement effective articulation and implementation.

Much attention has been advanced in respect to advanced standing and/or advanced placement. Fahrer and Michetich (17) in their report on the National Dissemination Project for post-secondary education reported that the area of curriculum and instruction is vitally linked to the acceptance of transfer credit, coordination of materials used in tracking, grading standards and preparation of teachers at both types of institutional levels.

Nelson (47) in his article entitled "New Challenges in Articulation" mentions the fact that present efforts to provide for transfer students does not keep pace with the tremendous increase in transfer enrollments and that this should mandate increased coordinative efforts. This is also further supported by Riley (51) in his study on Research and Development in Career Education.

Retention of transfer students was researched by the Florida State Department of Education (19) in an Articulation Study Report in 1973.

It was concluded that community colleges will best serve transfer students through constant coordination of programs and well informed guidance procedures.

In a study performed by the Research Coordinating Unit in the state of North Carolina, Manley (36) reports the apparent need for a Statewide Articulation Committee with equal representation from both the secondary and post-secondary institutional levels. The committee would provide assistance in coordinating all formal efforts of articulation between the two systems. The committee would be responsible for (1) study of available research on efforts being expended on curriculum articulation, and (2) develop no guidelines which might style initiative and innovation at the local level.

The reader should further be advised of potential problems to be encountered in efforts toward articulation of curriculum. Observations made by staff of the University of Wisconsin-Stout Articulation Project and Lutz (31) in his Region 8 Project report that vertical articulation from K-14 becomes a difficult task due to frustrations and fears on the part of educators, antagonism and resentments, as well as, disinterest from both school and community personnel.

Career Education

Although not normally considered synonomous with curriculum articulation, career education none-the-less plays an important and integral role in the entire process.

The question of an interrelationship between career education and articulated curriculum for occupational understanding is addressed by Bogart (5) in the proceedings of community college conference in

Arizona when he asks the question, "what is career education?" and then begins to discuss some of the problems in such a definition. They then look at articulation in terms of a series of questions. Articulation for what, how far? With whom? And what ways? Why? And to what end?

This interrelationship is further analyzed by the Nevada State Department of Education (48) in an analysis of career development needs in the state of Nevada. The conference dealt directly with articulation between community colleges, the public, community high schools, and student's in respect to career guidance in the public schools of Arizona.

Further addressing the necessity of homogenizing career opportunities into the occupational curriculum, Nelson (57), in his article, "New Challenges in Articulation", suggests that curriculum content must be relevant to the occupational objectives of the respective student, which in turn necessitates articulated efforts between the institutional levels.

In his summary of Research and Development Project in Career Education, Riley (51) although directing prime attention to career education per se, suggests the necessity of the homogenization of career education and curriculum articulation efforts.

Comprehensive occupational guidance services should include an emphasis on standardized testing for use in individual student identification according to Strong (54) and his analysis of Articulation of Occupational Orientation Education and Placement in Private and Public Elementary, Secondary and Post-secondary Schools Evaluation Report.

Additional support for early occupational awareness leading itself toward accommodation of the post-secondary school curriculum is that provided by the state of Nevada (48) to the extent that the student will

attempt to make programatic decisions based upon his inherent ability and the analysis of career development needs.

George T. Blume (4) further encourages career exploration at an early age in life and also links the mandates of curriculum and career education into meeting the needs of social manpower needs of the future labor market.

In her report on the National dissemination project for community colleges, Maxie (37) emphasizes the necessity for comprehensive pre-planning, planning and demonstration of a framework for a statewide career education implementation that would eventually lend itself to curriculum development through articulated efforts.

Competency Based Instruction

The Utah State Board of Vocational Education and its guide for cosmetology (59) has provided a vehicle to supplement articulation of all secondary and post-secondary vocational education programs in the state of Utah and cosmetology to enhance the student's movement smoothly from high school to vocational education centers. It is organized in a pattern of behavioral objectives so students may enter and complete the program in high school or in a post-secondary program or may transfer and continue without loss of time.

Another manual addressing the same topic, i.e., "Writing Performance Goals, Strategies and Prototypes" (55), outlines the characteristics of performance objectives for use by curriculum specialists in vocational and technical education.

A guideline based upon terminal performance objectives in the area of business and distributive education (52) has been prepared at San Meteo Union High School in California. It addresses student performances that were expected and conditions under which the student will perform that skill.

A final catalog of behavioral objectives organized by units of instruction in the drafting discipline is provided by Hill and Williams (25). Each unit contains an outline of the content, a goal statement, general and specific objectives.

Several resources were identified that alluded to competency-based instruction. One of which was that authored by Drost (16). The study was designed to provide data relevant to the automotive repair and service field and to develop and plan curriculum content that would be meaningful in respect to meeting the needs of students and the community.

Another analysis of competency-based instruction is provided by Morrison (45) in his development and evaluation of an experimental curriculum for the new Quincy Massachusetts Vocational Technical School. An analysis was developed of the performances required for job execution, resulting in descriptions of essential classes of performance which need to be learned. A panel of educators then recommended objectives for a vocational curriculum which incorporated 1) vocational competence, 2) responsible citizenship, and 3) individual self-fulfillment.

Endorsement of the individualized or personalized instruction approach is provided by the article entitled, "Approach To Individualized Instruction" (58), by the University of the State of New York. This study alludes to pretesting and testing out of courses and also addresses the notion of a sequential programmed instruction for bookkeeping.

The term competency has been defined by the Michigan State Department of Education (40) and a publication through Wayne State University that identifies a competency as a skill the student will demonstrate at a

predetermined proficiency level before initial and/or continuing certification. The performance objective becomes the vehicle by which the competency embedded in the actual instruction.

Some of the advantages found in the competency-based curriculum are identified by Place (50) in his article, "The Performance Based Curriculum." He addresses the increased flexibility in the instructional program, parent and student frustrations, scope and sequence and advantages provided toward the curriculum articulation efforts.

In the article, Suggested Curricula for Miscellaneous Clerical Occupations as developed by Applied Associates, Inc. (3), a guideline is provided that includes a systems approach to curriculum development incorporating the focusing in upon behavioral skill requirements.

Clark and Hamilton (9), in the article, "Comparative Development of Vocational Teacher Education Modules", described the components of individualized performance based instructional packages or models designed to develop professional competencies needed for vocational teachers.

Further addressing the utilization of competency based instruction is the study performed by Cotrell, i.e., "Model Curricula for Vocational Technical Teacher Education, Report Number 5" (10) where he provides performance oriented general objectives which are intended as guidelines for writing specific objectives for vocational technical teacher education curriculum.

An analysis of performance based teacher education in perspective is provided as a result of a report of a three-day meeting of the Annual Southern Region Research Conference in Agriculture at Mississippi State University (43). The report reflects on implications for performance

based teacher education in the field of agriculture.

A paper by McCaleb (38) focuses on methods on which the performance based teacher education curricula is being validated. The initial part of the paper discusses validity considerations from the standpoint of content, face, construct and criterion validity.

The University of Kentucky Research Coordinating Unit (29) provides a system of evaluation in respect to the organization of school systems including philosophy, performance objectives and local articulation efforts.

Cluster Approach

Another approach, system or subsystem, that might be utilized in the implementation of curriculum articulation efforts is that of the cluster approach.

A guide has been organized by Maley (34) entitled, "The Preparation of Curriculum Materials and the Development of Teachers for an Experimental Application of the Cluster Concept in Vocational Education." The guide is designed to provide a curriculum based upon an occupational cluster approach in metal forming and fabrication.

Frantz, in his article, "Career Clusters Concepts" (20) provides information to local school administrators in respect to occupational clusters as well as suggested strategies for implementing career cluster concept approach at the local level.

In another publication by Maley, that is Volume 1, Final Report for Phase II, the Cluster Concept Project, U. S. Office of Education (32), he addresses the problem of selecting a group of teachers capable of implementing pilot cluster content programs to plan and develop a teacher preparation curriculum for cluster concept programs and to develop a group

of teachers for experimental application of the cluster concept.

The original study by Maley was reinforced in volumes II, III and IV, that is (33, 34 and 35) in respect to preparation of curriculum materials regarding the cluster concept in vocational education.

Bortz, in his study, Comprehensive Career Cluster Curriculum Model in Health Occupations (6) identified five career cluster axis in the health occupations area with two auxilary career component modules to supplement. The study primarily addressed a vehicle to provide opportunities for maximizing awareness, exploration, evaluation, implementation of individual student interests, capabilities and values through personal action.

Course Outlines

Although many course outlines and curriculum guides are available to the vocational researcher, a few random outlines and guides are provided in this literature merely to provide examples of what forms of literature are available. Course outlines and guides are available in the following areas: all from the Dade County Public Schools in Miami, Florida we find welding operations (11), automotive air-conditioning (15), auto mechanics as applied to auto body occupations (13), automotive body repair trainee (12), automotive trim and glass mechanic (14); from the Georgia State Department of Education, a curriculum guide in general metals (21), and also a guide in power and technology (22); from the Kansas City Public Schools, a curriculum guide for administrators and industrial arts teachers in planning and conducting drafting programs

(27), from the U. S. Office of Education a curriculum guide for basic education in the office occupations (56), from the Pittsburg Board of Public Education, Division of Curriculum Instruction, a curriculum guide in automotive services (49), "a guide to distributive education coordination" by Zelco (63) addresses the distributive occupations and from the Alabama State Department of Education a curriculum guide for agricultural mechanics (1).

Curriculum Development

An analysis of general curriculum development as provided by the work of Valentine (60) in the article, "Vocational Education Curriculum Development in Career Education." This document is a report of three training institutes for curriculum personnel development for the integration of innovative concepts and new developments, specifically in the area of career education with emphasis upon articulated efforts.

In a paper by James Wall (61), "Adopting Curriculums To Local Needs", he discusses a brief rationale and important factors pertaining to the adaptation of vocational technical curriculums to local schools. An education oriented systems approach is used and addresses curriculum articulation in a subtle manner throughout the paper.

In a report by Staber (53), to describe summer workshops for administrators, counselors, librarians and department heads and all the vocational teachers, the obvious need for diversified curriculum was identified with attention directed to the necessity of input from guidance and student needs and interests in respect to curriculum development in articulation.

In the article, "Development and Evaluation of Curriculum Wage Earning Occupations Final Report," by Morrow and Corn (46), a negative reaction is reported in respect to articulation of curriculum and occupational training using the occupational cluster approach as a means of curriculum content provisions.

In the handbook for business education as developed by the Ohio State Department of Public Instruction (26) particular attention is devoted to each educational level while primary emphasis is given to the secondary schools in regards to curriculum involving business education programs over the entire state and the potential ramification and implications of curriculum articulation.

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CHAPTER III

METHODOLOGY AND PROCEDURES

Introduction

This section is divided into four phases.

The first phase identifies the organizational structure and management strategies incorporated by the project staff designed to act as a guide in implementing the objectives and activities of the articulation project. The second phase reports on the statewide communications network identified by the project staff and also contains a summary of the workshop(s) and number of participants according to each VTAE-CESA area serviced. A list of the workshop participants is included in Appendix C. The third phase of this section is a summary of the activities and meetings in which the articulation project staff participated during the project year. The fourth phase contains a brief summary of the project evaluation.

Phase I: Organizational Structure and Management Strategies

Advisory Committee

The project staff formulated an Ad Hoc Articulation Advisory Committee consisting of representatives from the joint DPI-WBVTAE state staff, EPDA Committee, the statewide part F EPDA Advisory Committee, teacher educators, local vocational educators, and UW-system educators.

The purpose of this advisory committee was to give overall direction to the project and establish priorities for the project activities during the project 1974-75 year. Determination of the committee representation was jointly made by the WBVTAE and UW-Stout CVTAE staff. The members of this committee and their respective agencies and the minutes of the meeting are included in Appendix D.

The Ad Hoc Articulation Advisory Committee met three times during the project year. The first meeting was held on October 12, 1974. At this meeting the UW-Stout CVTAE Co-Directors, Dr. Orville Nelson and Dr. Harold Halfin gave a brief overview of the project's objectives, goals and proposed activities and proposed time schedule for implementing same. At this meeting, the committee recommended focus should be on the area of curriculum articulation and suggested a briefing of the project be held for all top level administrators both from secondary and post-secondary levels to solicit their support to the statewide articulation effort.

The second meeting of the Ad Hoc Advisory Committee was held in the Wisconsin Dells area at the Kahler Motor Inn in Lake Delton on March 25 and 26, 1975. At this meeting the project staff reported to the committee on problems encountered and on the status of the articulation project staff activities and progress which included a listing of the workshops initiated at that time as a result of the project contacts. The report on the workshops was organized by VTAE district and included the name of each contact person(s), area selected to be studied, number of participants expected, schedule of tentative or actual workshop dates and expected outcome(s).

The third and final meeting was held on August 6 and 7, 1975, at the Holiday Inn in Stevens Point. The primary purpose of this meeting was to review, evaluate and make recommendations to the final report prior to final typing, publication and dissemination.

Computer Search of ERIC System

In attempting to obtain a comprehensive listing of resources relevant to the concept of articulation, the project staff completed an extensive search of the UW-Stout and the University of Minnesota Research Libraries. Both universities receive materials from ERIC clearing house for Vocational and Technical Education, Ohio State University, and as a result, maintain a relatively complete, comprehensive and up to date collection of microfiche, hard copy, and microfilm available for use by researchers.

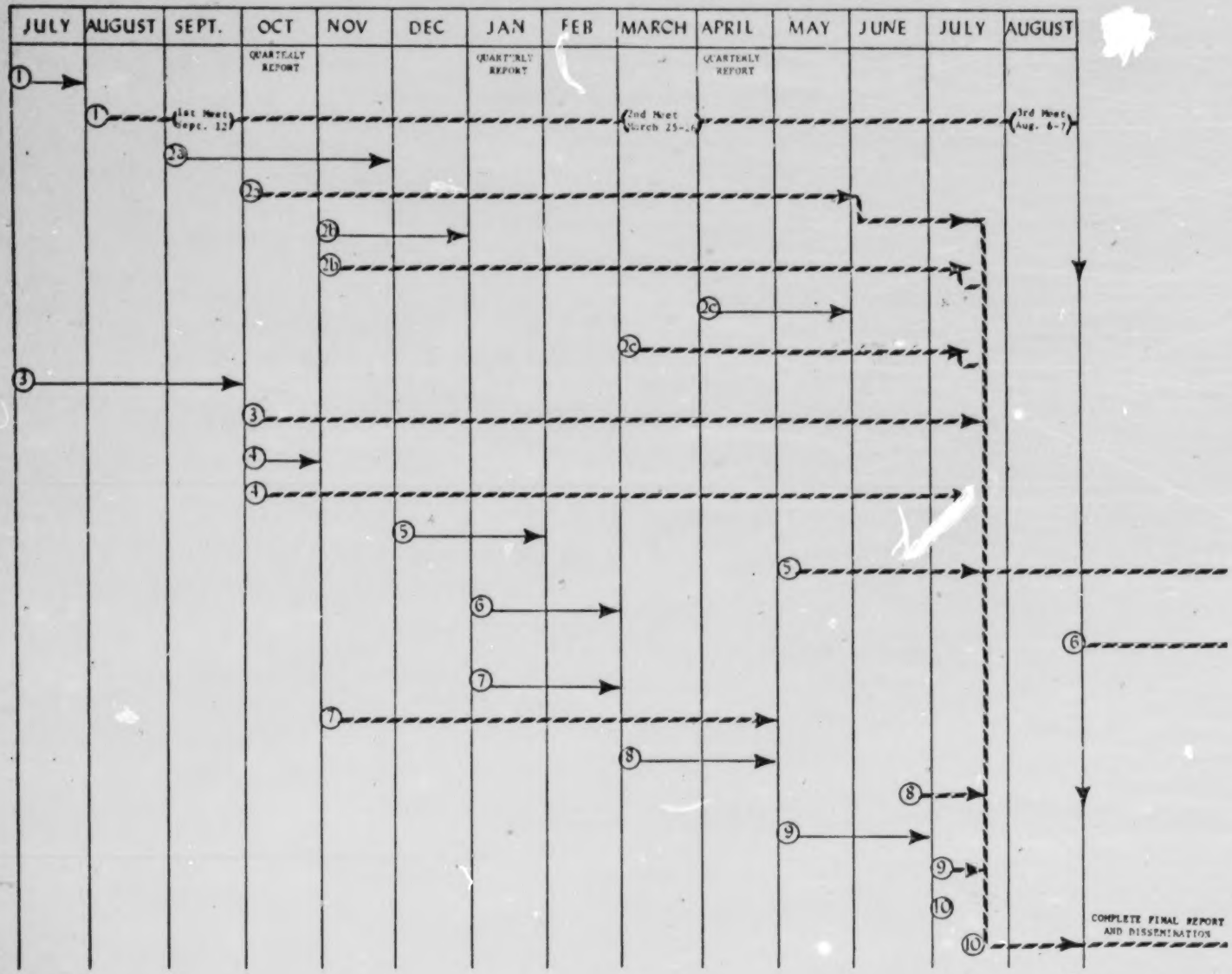
Much information was obtained through a review of current publications as well as the ERIC system.

Key descriptors were identified, materials collected and a card system developed which served as a basis for this project's bibliography used for the review of literature. ERIC numbers are provided in the bibliographic description for easy reference for those interested in additional information.

Project Activities and Procedures

In order to implement the objectives and proposed activities of the statewide articulation project, a management strategy was developed by the project staff. A process flow chart (Chart I) was developed to act as a guide to implementation of the project activities and objectives. This chart acted as an invaluable tool to the project staff throughout the project year.

ARTICULATION PROJECT —(Proposed Activities Schedule)
--(Reported Activities Schedule) 2 month extention



Activities & Time Schedule Index

1. Formation of Ad Hoc Advisory Committee and report on actual meeting.
2a. Regional one-day introductory seminar.
2b. One-day curriculum articulation workshop.
2c. Regional one-day summary seminar.
3. Review of literature.
4. Formulation of local articulation committee.
5. Curriculum review and validation.
6. Field testing curriculum.
7. On-site visits by project staff.
8. Project staff develop articulation model.
9. Project evaluation.
10. Complete final report.

Phase II: Communications Network

Initial Communications

As a result of a recommendation made by the Ad Hoc Articulation Advisory Committee members at the first meeting held in September, the project staff began initial communications with secondary and post-secondary school administrators. The project staff initiated correspondence to each CESA, requesting that the project staff have an opportunity to explain the articulation concept to local district administrator in each CESA district. At the same time, a letter was sent to each VTAE District Director to invite them and/or their instructional services representative to a portion of the scheduled CESA monthly meeting for the articulation project presentation. The purpose of this meeting was to commence coordination of the statewide articulation project. (See Communications Appendix E.)

In an attempt to establish effective and lasting communication links between secondary and post-secondary school staff members, a framework and/or a general definition of articulation was developed and presented at the VTAE-CESA meeting. (See Appendix F.)

Identification of Communications Network

Immediately following the CESA meeting, it was hoped that through involvement of secondary level educators, VTAE district educators and CESA administrators would assume a leadership role in causing the following to mutually happen in each VTAE district:

a. Identification of existing and/or articulation efforts.

b. Identification of school districts interested in becoming involved in the articulation effort.

c. A selection of the vocational technical course and/or related curriculum to be studied and articulated.

d. Selection of the staff to participate.

e. Identification of the time and location for a series of one-day workshops to be held in each VTAE district.

In January, 1975, the project staff distributed a brief questionnaire to each VTAE district and CESA contact person and requested that they identify the area that they selected to be studied, schedule of workshop(s), estimated number of participants and expected outcomes of their planned articulation effort.

The following is a summary of the responses received and subsequent schedule of workshops that were held in each VTAE-CESA area and number of participants attending the workshop(s) according to each VTAE-CESA area serviced. A list of the workshop participants, as reported by each VTAE district, is included in Appendix iii.

District VTAE	Contact Person	Area(s) Selected	Schedule of Workshop(s)	No. of Participants Per Workshop	Total	Expected Outcome(s)
VTAE District One	Bob Birchler Orv Gabriel Bill Doyle	Trade & Industry	Dec. 11, 1974 Feb. 10-14, '75 Apr. 9, 1975 May 5-9, 1975	24 25 27 23	98	Program awareness and process development.
Western Wisconsin VTAE	Vic Larson	Did Not Participate	———	———	———	→
Southwest Wisconsin VTAE	Dick Duffy	Did Not Participate	———	———	———	→
Madison Area Tech. College	Mel Seamans Alun Thomas	Business Education Trade & Industry	Nov. 20, 1974 Mar. 12, 1974 Mar. 19, 1974	41 23 45	88	Program awareness and process development.
Blackhawk VTAE	Harry Olsen Zollie Hall	Business, Distributive Ed., Home Economics, General Ed., Trade & Industry, Agriculture Health	May 5, 1975 May 6, 1975	46 51	97	Program awareness and process development.
Gateway VTAE	Ken Mills Harold Sahakian	Distributive Ed. Business Education	Oct. 15, 1974 Feb. 4, 1975 May 29, 1975 May 30, 1975	23 17 16 17	73	Study respective curricula & develop a model for instructiona articulation. Program awareness.
Waukesha Co. Tech. Institute	Jim Catania Gene Cook	Business Occupations Trade & Industry	Jan. 24, 1975 Jan. 30, 1975 Feb. 20, 1975 Mar. 19, 1975 Apr. 9, 1975 May 7, 1975 May 15, 1975	16 14 12 15 16 21 16	110	Develop a model or process to implement ongoing articulation.
Milwaukee Area Tech. College	Don McGibbon Bernard Greeson	All Divisions	Oct. 25, 1974 Nov. 15, 1974 Mar. 4, 1975 Apr. 14, 1975 May 19, 1975	22 32 55 45 50	204	Program awareness and process development.

[illegible]	[illegible]	Welding Metal Fabrication	[illegible] Apr. 10, 1975	[illegible] 53		petencies Competency Articulatio
Lakeshore VTAE	Ed Falck	Did Not Participant				
Fox Valley VTAE	Nancy Wittrock Stan Spanbauer	All Divisions	Jan. 30, 1975 Mar. 17, 1975 Mar. 24, 1975 Apr. 23, 1975 May 14, 1975	32 51 46 48 69	246	Program awareness Task analyses and competency identification
Northeast Wisconsin VTAE	Thor Magnuson Pat Humphreys	Welding, Business, Math, Auto Mechanics, Mach. Shop, Drafting, Home Ec.	Jan. 15, 1975 Mar. 10, 1975 Mar. 19, 1975	23 21 136	180	Program awareness Determine standard of skill development Process development
Mid-State VTAE	Bill Van Ornum	Business Occupations	May 7, 1975	36*		
North Central VTAE	Russ Paulson Chuck Christianson Lois Gilliland	Business Occupations	May 7, 1975	36*	36	
Nicolet VTAE	Dr. Richard Brown Dave Christoffersen	Trade & Industry Business Education English	Apr. 10, 1975 May 6, 1975 May 7, 1975 May 8, 1975	20 13 15 14	62	
Wis. Indianhead VTAE	Art Cothran	Business & Dist. Ed. Small Engines Auto Body Auto Mechanics	Feb. 14, 1975 Mar. 20, 1975 Apr. 2, 1975 May 9-10, 1975	24 20 20 18	82	Program awareness Curriculum development

Secondary School
Intensified Workshop

Gateway VTAE District Delavan H. S. Racine Park H. S. Waukesha Co. Tech. Institute Delavan H. S. Oconomowoc H. S. Blackhawk Tech. District Monroe H. S. Janesville H. S. District One VTAE District Eau Claire North H. S. Chippewa Falls H. S. WBVTAE DPI		Distributive Ed.	Feb. 24-26 Apr. 25-26	18 15	33	Review 983 competencies Develop implementation strategies

* Workshop held jointly

● Above participation does not indicate total number served since many participants attended subsequent second and third workshops.

6-III

By the end of March, 1975, the project staff had either attended or conducted over fifty articulation meetings throughout the state. Preliminary evaluation and staff observation clearly identified the competency based curriculum development approach as a widely used and accepted vehicle for articulating curriculum in vocational programs.

This is also evidenced by the analysis of the responses to a workshop questionnaire as reported on in detail in Chapter IV.

In an attempt to eliminate duplication of effort whenever possible, the project staff generated a survey to determine which schools were actively participating in articulation efforts and especially those using competency based instruction. As a result of the survey and the data collected, a directory was produced and disseminated to CESA, LVEC, VTAE, LEA educators throughout the state. (See Appendix G.)

Phase III: Summary of Activities and Meetings

Enclosed is a summary of activities and meetings in which the articulation project staff participated in during the 1974-75 project year. These activities are reported to give an indication of the type and scope of activities on this statewide articulation project in which the project staff members participated in during the project year. This documentation includes the date, place of meeting, and a brief description of the meeting purpose or content. (See Appendix H.)

Phase IV: Summary of Workshop Evaluation

Input from secondary and post-secondary vocational technical educators throughout the state was obtained through meetings, staff observations and a workshop questionnaire for evaluating the articulation project and workshop activities.

The responses and evaluations were very positive and supportive of the articulation project and workshop activities. Most of the participants indicated they wanted follow-up curriculum in-service and articulation workshops to continue to work toward articulation between secondary and post-secondary vocational technical programs.

Further analysis of the responses indicated that most of the participants, due to the fact that each year new teachers, students and a rapidly changing work world, indicated a need for a continuous and conscious articulation effort if meaningful and constructive change is going to happen.

Specific analysis and results of the workshop questionnaire are given in Chapter IV.

CHAPTER IV

FINDINGS AND ANALYSIS

It has been estimated that approximately 800 educators (see Appendix for list of participants) participated in the curriculum workshops throughout the state during the course of this project year.

An evaluation questionnaire (see Appendix I for sample survey form) was distributed to approximately 100 workshop participants. Eighty-six participants responded to this survey questionnaire, thus resulting in an "N" of 86.

Numeric values were assigned to the alpha responses as follows:

SA (Strongly Agree)	= +2
A (Agree)	= +1
U (Undecided)	= 0
D (Disagree)	= -1
SD (Strongly Disagree)	= -2

The thirty-one questions were stratified into five general categories as follows:

1. Workshop content and/or organization.
2. Participant interactions.
3. Anticipated needs of future workshops.
4. General curriculum matters.
5. Workshop staff and consultants.

The five categories are still further subdivided into three modules of information for the convenience of the report reader; these subsections are as follows:

1. Category questions: A restatement of the questions assigned to this specific category.
2. Category analysis: This analysis describes the responses for each of the numbered questions assigned to the specific category. Information provided in the table is as follows:
   a. Question number - same as the number on the original survey form.
   b. Total "N" - number of responses for the respective question.
   c. "N" of SA - number of responses to "Strongly Agree".
   d. "%" of SA - percent of "Strongly Agree" responses.
   e. "N" of A - number of responses to "Agree".
   f. "%" of A - percent of "Agree" responses.
   g. "N" of U - number of responses to "Undecided".
   h. "%" of U - percent of "Undecided" responses.
   i. "N" of D - number of responses to "Disagree".
   j. "%" of D - percent of "Disagree" responses.
   k. "N" of SD - number of responses to "Strongly Disagree".
   l. "%" of SD - percent of "Strongly Disagree" responses.
   m. "N" of No Response - number not responding to the question.
   n. "%" of No Response - percent not responding to the question.
   o. $\bar{X}$ - mean value of the specific question.
3. General observations regarding juxtapositions of the responses to questions within the category.

A restatement of the questions, a summary of the data and a response analysis for each of the five general categories are found

on pages IV-4 through IV-20 of this chapter.

Category Number 1

Questions Relating To The Workshop Content and/or Organization

1. The articulation workshop(s) helped upgrade staff capabilities to expand and improve articulation of secondary and post-secondary vocational education.

2. The workshop(s) helped identify taxomonies of competencies in selected occupational education areas appropriate to secondary and post-secondary levels.

5. The workshop(s) provided in-service education for secondary and post-secondary educators to up-grade competencies in diagnosing and analyzing curriculum articulation needs for selected secondary and post-secondary vocational education programs.

8. We really didn't have enough time to work at our writing tasks.

9. At the end of the first meeting I clearly understood what I was to accomplish.

10. The workshop established a good balance between individual and group work toward materials production and process identification.

13. I needed more time than I got for writing.

24. I might have accomplished more if the workshop had been more tightly organized.

31. My general evaluation of this workshop is that it was worth attending.

Questions Relating To The Workshop Content and/or Organization

Question Number	Total "N"	"N" SA	"%" SA	"N" A	"%" A	"N" U	"%" U	"N" D	"%" D	"N" SD	"%" SD	"N" No Response	"%" No Response	$\overline{X}$
1	81	23	26.7	43	50.0	11	12.8	4	4.7	0	0	5	5.8	+1.05
2	80	10	11.6	40	46.5	15	17.4	12	14.0	3	3.5	6	7.0	+.53
5	79	15	17.4	37	43.0	22	25.6	5	5.8	0	0	7	8.1	+.78
8	79	17	19.8	43	50.0	11	12.8	8	9.3	0	0	7	8.1	+.87
9	65	1	1.2	19	22.1	23	26.7	16	18.6	6	7.0	21	24.4	-.02
10	77	4	4.7	32	37.2	17	19.8	21	24.4	3	3.5	9	10.5	+.17
13	71	11	12.8	30	34.9	17	19.8	12	14.0	1	1.2	15	17.4	+.54
24	81	8	9.3	16	18.6	22	25.6	31	36.0	4	4.7	5	5.8	-.09
31	86	31	36.0	45	52.3	10	11.6	0		0	0	0	0	+1.36

$\overline{X}$ = +.58

SD = 1.023

Questions Relating To The Workshop Content and/or Organization

In analyzing responses to a specific question, certain assumptions may be made based upon the total juxtaposition of those responses within a normal curve distribution. That is, can a central tendency of responses be determined due to a preponderance of responses near the apex of the curve or is there a general tendency for responses to gravitate to either the "left " or to the "right" in the total distribution.

The following are general statements regarding the relative juxtaposition of central tendencies within those distributions of the respective questions. Similar clarifying statements will be included in categories 2 through 5 as well.

Question #1: Seventy-six point seven percent of the responses to this question reflect either agreeing or strongly agreeing statements. There is a pronounced bell curve between strongly agreeing, agreeing and undecided with a definite skewing off toward the disagreeing side of the apex.

Question #2: The reader should note that 24.4% of the respondents to question #2 were either undecided or did not respond to the question at all. And conversely, 58.1% of the participants did agree that there has been assistance in the identification of taxonomic levels of competencies.

Question #5: Again, the reader is advised that approximately one third of the respondents either were undecided or did not respond to the question at all. This represents 29 undeclared responses of a total N of 79, which is a relatively significant number in respect to the derived mean value.

It should be observed that a positive mean value of a negative restated question strongly indicates that sufficient time was not provided for the writing tasks.

Question #9: The reader may note that there is a very normal distribution of responses to this question and the analyst cannot make any assumption due to the divergent viewpoints of the participants.

Question #10: Responses to this question also represent a rather scattered approach surrounding the point of central tendency, that is, around the response undecided with 32 agreeing, 21 disagreeing and 17 undecided. This constitutes a total of 70 participant responses in the middle of the curve with approximately 91% not clearly agreeing or disagreeing with the question.

Question #13: The reader is advised that since this is a negative type of question, that a positive response tends to suggest that there was not sufficient time for the writing. Responses also are scattergrammed with no point of central tendency.

Question #24: There is a concentration of responses centering around agreeing, undecided and disagreeing, with the central tendency reflecting a lack of real committal, it could be considered that responses may not be extremely valid or reliable.

Question #31: There are several significant characteristics of this question, namely all 86 participants responded to it. There were no strongly disagreeing statements nor disagreeing statements. In addition, it reflected one of the highest mean values for any of the 31 questions, i.e., +1.36 with 76 of the 86 participants responding either agree or strongly agreeing representing a positive response of 88% of all respondents.

Category Number 2

Questions Relating To Participant Interactions

3. Even after they have participated in a workshop, participants will wish to have a competent consultative services readily available.

12. My personal interactions with staff members were an important part of the workshop.

21. Almost all workshop participants tried hard to contribute to workshop success.

25. I feel that my background preparation was sufficient for me to benefit from the activities of the workshop(s).

26. I feel that my time and efforts were appropriately spent while participating in the workshop(s).

27. I was adequately aware and informed as to the purposes of the workshop(s) prior to my arrival.

30. I gained an appreciable amount from the opportunity to interact with other participants.

Questions Relating To Participant Interactions

Question Number	Total "N"	"N" SA	"%" SA	"N" A	"%" A	"N" U	"%" U	"N" D	"%" D	"N" SD	"%" SD	"N" No Response	"%" No Response	$\bar{X}$
3	86	33	38.4	42	48.8	6	7.0	4	4.7	1	1.2	0	0	+1.20
12	80	27	31.4	35	40.7	13	15.1	5	5.8	0	0	6	7.0	+1.05
21	85	16	18.6	57	66.3	3	3.5	8	9.3	1	1.2	1	1.2	+.93
25	85	20	23.3	45	52.3	6	7.0	11	12.8	3	3.5	1	1.2	+.80
26	86	29	33.7	38	44.2	13	15.1	6	7.0	0	0	0	0	+1.05
27	86	11	12.8	31	36.0	13	15.1	22	25.6	9	10.5	0	0	+.15
30	82	19	22.1	56	65.1	7	8.1	0	0	0	0	4	4.7	+1.15

$\bar{X}$ = +.85

SD = 1.04

Questions Relating To Participant Interactions

Question #3: It should be noted that 75 participants out of the N of 86 or approximately 80% either agreed or strongly agreed that competent consultant services should be available. This is further evidenced by the leftward skew of the distribution curve.

Question #12: The responses to this question also have a definite skew of the responses, that is, 71% either agreeing or strongly agreeing. It should also be noted that 19 of the respondents, that is, approximately 22.1% either were undecided or did not respond to the question at all.

Question #21: Seventy-three out of the 85 respondents or 84.9% either agreed or strongly agreed with few dissenting responses.

Question #25: Responses to this question also skewed to the left, that is, 75.6% of the respondents either agreed or strongly agreed with the statement with few dissenting responses.

Question #26: Again, 77.9% or 67 of the participants felt that they could either agree or strongly agree with the statement with a fairly large number undecided with few participants, that is, 7% either disagreeing or strongly disagreeing with the statement.

Question #27: Responses to this question demonstrated a rather flat curve which would tend to suggest an apparent feeling of confusion with the statement. However, the result of the statement is negative, so one might concede that the participants in general did not feel adequately informed prior to the workshop.

Question #30: It should be noted that no respondents either disagreed or strongly disagreed with the statement and only 7 were undecided, leaving approximately 80% of the respondents either agreeing or strongly agreeing.

Category Number 3

Questions Relating to Anticipated Needs of Future Workshops

4. There is need to prepare staff members of secondary and post-secondary school systems to assume responsibilities for aiding articulation in regular classroom curriculum.

14. A series of (1) day workshop(s) is sufficiently long to provide adequate learning for participants.

22. Workshops similar to this one would be beneficial to me in the near future.

23. In order to be most meaningful, a follow-up workshop or program should be available to me.

28. Workshop(s) similar to this one would be beneficial to others.

Questions Relating to Anticipated Needs of Future Workshops

Question Number	Total "N"	"N" SA	"%" SA	"N" A	"%" A	"N" U	"%" U	"N" D	"%" D	"N" SD	"%" SD	"N" No Response	"%" No Response	$\bar{X}$
4	85	42	48.8	35	40.7	5	5.8	2	2.3	1	1.2	1	1.2	+1.36
14	79	3	3.5	24	27.9	18	20.9	24	27.9	10	11.6	7	8.1	-.18
22	84	27	31.4	50	58.1	5	5.8	2	2.3	0	0	2	2.3	+1.29
23	84	30	34.9	39	45.3	13	15.1	2	2.3	0	0	2	2.3	+1.15
28	85	35	40.7	41	47.7	8	9.3	0	0	1	1.2	1	1.2	+1.28

$\bar{X}$ = +.98

SD = .997

65

Questions Relating to Anticipated Needs of Future Workshops

Question #4: Responses to this question demonstrate a rather dramatic skew to the left or towards agreeing and strongly agreeing, that is, 77 of the 85 or 89.5% of the responses were concentrated in the agreement area of the curve.

Question #14: It might appear to the observer with the -.18 mean value in addition to 77% of the respondents either agreeing, undecided or disagreeing, that there were not definite feelings in respect to a series of one-day workshops. This lack of decisiveness is also illustrated by the fact that there are two bell curves from the respective responses to this question.

Question #22: Responses to this question also skew very strongly toward the left or to the agreeing, strongly agreeing section of the distribution, that is, 77 of the 84 responses or 89.5% either agreed or disagreed.

Question #23: Again, the responses tended toward the left or agree, strongly agree segment of the curve, that is, 69 out of the 84 or 80.2% of the responses either agreeing or strongly agreeing. It is also significant that 15 or 17.4% of the responses were either undecided or did not respond at all to the question, that is, only 2 persons disagreeing to any degree at all.

Question #28: Again, the response distribution tended to locate very definitely to the left with 76 of the 85 participants responding or 88.4% of them either agreeing or disagreeing with 9% undecided and only one person either disagreeing or strongly disagreeing--it might also be noted that responses to this question reflected a relatively high mean value.

Category Number 4

Questions Relating To General Curriculum Matters

6. Competency based instruction is the delivery vehicle that will cause effective curriculum articulation.

7. The cluster approach is the delivery vehicle that will cause effective curriculum articulation.

20. I experienced teaching techniques which were new to me.

29. I believe I can successfully encourage and assist others in my school system in understanding and undertaking new approaches for articulation of secondary and post-secondary programs.

Questions Relating to General Curriculum Matters

Question Number	Total "N"	"N" SA	"%" SA	"N" A	"%" A	"N" U	"%" U	"N" D	"%" D	"N" SD	"%" SD	"N" No Response	"%" No Response	$\overline{X}$
6	83	26	30.2	40	46.5	12	14.0	5	5.8	0	0	3	3.35	+1.05
7	80	5	5.8	29	33.7	36	41.9	8	9.3	2	2.3	6	7.0	+.34
20	74	3	3.5	15	17.4	14	16.3	32	37.2	10	11.6	12	14.0	-.42
29	84	11	12.8	42	48.8	27	31.4	3	3.5	1	1.2	2	2.3	+.70

IV-15

$\overline{X}$ = +.44

SD = 1.04

Questions Relating To General Curriculum Matters

Question #6: Again, the responses tend to skew to the left or towards the degree segment of the curve--66 respondents or approximately 77% of the participants questioned either agreed or disagreed to this statement.

Question #7: Responses tended to group towards the apex or center of the curve with a fairly substantial distribution on both sides of the apex. This would tend to suggest that there is not a concensus supporting this statement and that the confidence limits of the responses are somewhat in question.

Question #20: It should be noted that 12 participants did not respond to this question and in addition, 14 were undecided. There tends to be a double curve with somewhat inconsistency in responses and therefore, not to be considered sufficiently valid and reliable.

Question #29: Responses to this question tended towards the agree and strongly agree segment of the curve, however, 27 participants or 31.4% were undecided. With such a large impact on the undecided responses, the analyst might be cautioned in over interpreting any analysis of the responses to this question.

Category Number 5

Questions Relating To Workshop Staff And Consultants

11. The workshop staff made itself personally available to me.

15. Consultative services were sufficiently available and constructive.

16. Presentations by consultants were well organized and allowed sufficient flexibility to meet the purposes of the participants.

17. The Stout articulation project staff should work more closely with local district articulation teams.

18. The Stout articulation project should work with only 4 to 6 technical centers and in a more concentrated manner.

19. The Stout articulation project staff members represent a third party and consequently do not understand the problems associated with secondary as well as post-secondary staffs.

Questions Relating To Workshop Staff And Consultants

Question Number	Total "N"	"N" SA	"%" SA	"N" A	"%" A	"N" U	"%" U	"N" D	"%" D	"N" SD	"%" SD	"N" No Response	"%" No Response	$\bar{X}$
11	76	18	20.9	41	47.7	12	14.0	2	2.3	3	3.5	10	11.6	+.89
15	76	6	7.0	34	39.5	22	25.6	9	10.5	5	5.8	10	11.6	+.22
16	75	13	15.1	38	44.2	13	15.1	11	12.8	0	0	11	12.8	+.57
17	75	18	20.9	34	39.5	22	25.6	0	0	1	1.2	11	12.8	+.77
18	68	7	8.1	18	20.9	22	25.6	15	17.4	6	7.0	18	20.9	+.07
19	76	8	9.3	6	7.0	17	19.8	33	38.4	12	14.0	10	11.6	-.46

$\bar{X}$ = +.42

SD = 1.11

Questions Relating To Workshop Staff and Consultants

Question #11: Responses to this question, in general, tend to lean to the less segment of the curve or the agree, strongly agree distributions. However, 12 persons or 14% were undecided and only 5% either disagreeing or strongly disagreeing. However, 10 persons or approximately 12% of the participants did not respond to the question at all.

Question #15: A substantially high number of participants, that is, 32 or 37.2% of the participants were either undecided or did not respond to the question at all. The analyst is advised to make his/her own interpretation in respect to the distribution of responses to this question.

Question #16: Although leaning slightly to the left segment of the curve, that is, the strongly agree section. The total distribution of responses, however, is very mixed and does not appear to provide any sort of normal distribution of responses. The observer is again advised to interpret the data accordingly.

Question #17: A large number, that is, 33 participants or 38.4% were either undecided or did not respond to this question at all.

If one is to disregard these undecided and non-response distribution, then the curve would lean heavily to the left, however, again the observer is advised to make his/her own interpretation.

Question #18: Forty participants or 46.4% of the N of 86 either were undecided or did not respond to the question at all. Furthermore, 55 or 63.9% of the responses were centered around the apex of the curve which is undecided with a mode value of 22 being undecided. Therefore, it might be advisable from the standpoint of integrity in interpreting this response to consider the confidence limits.

Question #19: The reader is advised that this question has been stated in a negative vanacular and therefore, the mean value possessing a negative actually should be interpreted to be a positive mean value. It should also be noted that 27 or 31.4% of the participants were either undecided or did not respond to the question at all. It should also be noted that 45 or 52.4% of the participants tended toward the right side of the curve or disagreed to strongly disagreed with the statement.

Results of Activities and Workshops

The following is a generalized summary of activities within the 16 technical districts as observed by the University of Wisconsin-Stout articulation staff.

District One Technical Institute

This technical district approached the preliminary stages of articulation by providing orientation workshops for two separate groups of secondary school teachers and VTAE instructional staff.

The first workshop was held in the facility of District One in Eau Claire, with the subsequent workshops being held throughout the district in various high school districts.

The district felt that there was excellent feedback from the secondary schools and felt that it was well worth continuing in future school years.

Western Wisconsin Technical Institute

This district did not choose to participate in the Articulation Project.

Southwestern Wisconsin Technical Institute

This district did not choose to participate in the Articulation Project.

Madison Area Technical College

This district approached the problem of articulating curriculum by organizing and providing three separate workshops. The first in the series of three workshops was intended to provide a general orientation to superintendents, principals, etc. and respective VTAE staff.

The second workshop in the series concentrated on the Trades and Industrial discipline. Most of the instructors tended to feel that there should be a student profile that would provide student proficiency levels when the high school students entered the post-secondary institution. In

addition, they strongly endorsed additional articulation meetings with participants representing both instructional staff and administrative staff. The third workshop in the series concentrated in the area of business education. Previous correspondence requested that the attendees bring with them existing curriculum outlines and materials, etc. The group then broke off into small group discussions to consider alternative methods and strategies for program implementation.

The workshop ended on a concensus that they should meet again during the month of June for continuation of their efforts.

Blackhawk Vocational, Technical and Adult Education District

This district took yet another alternative toward the development of articulating curriculum. Participants from the technical district were from Business Education, Home Economics, Health Occupations, Trades and Industrial, Agriculture and Distributive Education. Their respective counterparts in the local high school districts were also invited with approximately 90 participants each day for two days for a total of approximately 180 participants.

The participants broke into small group discussions by area discipline with state staff both from the Department of Public Instruction and the Vocational, Technical and Adult Education Board present to act in a capacity as consultants.

Each of the small groups came to a concensus following their group meetings that they should schedule renewal meetings to continue to work toward curriculum articulation for the school year 1975-76.

Gateway Technical Institute

This district also held several workshops with the first two initial workshops concentrated primarily on a general orientation to the problems and implications of curriculum articulation.

A subsequent workshop addressed the two areas of competency based instruction and the DACUM student profile approach. Considerable effort was placed on the incorporation of behavioral objectives and to the total articulated curriculum content.

Waukesha County Technical Institute

In this district a series of orientation and awareness workshops were held with the feeder high school representatives primarily LVECs and administrative staff. It was decided that there should be two principle objectives, namely, the organization of interdisciplinary monthly meetings for communications with faculty of both institutional levels and also to develop a process or model that would provide guidance for future and ongoing implementation efforts.

Milwaukee Area Technical College

Five workshop meetings were held in this technical district. The first two primarily for the intention of outlining objectives and general orientation. The participants at the first two meetings were primarily vocational, technical and adult educators, along with secondary administrators and LVECs.

Subsequent workshops involved teaching faculty from the area of agriculture, business education, distributive education, home economics, health occupations, guidance and counseling, trades and industry and student admissions. The objectives of the workshop were to (1) diagnose and analyze curriculum articulation problems and needs; (2) compare selected secondary and post-secondary vocational technical curriculum; (3) develop recommendations and post-curriculum revisions; and (4) develop a plan for the continuation of mutual articulation activities after the workshops were completed.

In general, the participants felt that the meetings were worth while and beneficial to their respective vocational education programs.

Moraine Park Technical Institute

Previous to administering workshops, a planning group consisting of administrators and coordinators from local CESAs and from Moraine Park Technical Institute-Fond du Lac met and designed the objectives and anticipated outcomes of the project. A decision was made to narrow the study to three specific programs that have a great deal of popularity at both levels of the vocational programs. The programs that were included were (1) machine tool, (2) metal fabrication, and (3) welding.

Four key objectives were identified as a major focus of the project: (1) To get staff members from the various schools acquainted and to begin meaningful discussions about the subject content that will continue in the future. (2) To share existing course objectives, outlines and other teaching material. (3) To more clearly define the goals and objectives that are being established at the secondary and post-secondary levels. (4) To develop a list of competencies that are appropriate to the various levels of instruction. This will enable students to more easily test out of beginning courses at the post-secondary level. In general, participants tended to feel that all the meetings were well worthwhile and expressed a genuine concern for continuation in subsequent school years.

Lakeshore Technical Institute

This district did not choose to participant in the Articulation Project.

Fox Valley Technical Institute

This district began articulation efforts by hosting an orientation meeting that brought together school superintendents, principals and LVECs

with technical and adult personnel, including board members from the district.

Major emphasis was placed upon the orientation and development of competency based instruction.

Major concentration was in the area of business education, with preliminary workshops for all other disciplines. The business education workshop and respective participants performed a task analysis in their own school district, returning to meet as a large group at a later date. The prime objectives or tasks to be considered were as follows: (1) job identification; (2) provide a survey to ascertain which occupations existed in the district; (3) a task identification which was to determine the basis fo competency based instruction. Groups were to list the tasks needed for each job and to determine at which level and to which course they can best be incorporated into the curriculum. (4) To determine the levels of competency for the tasks identified as well as suggested methods for obtaining these competencies as well as a grading system. (5) To determine the system for implementation of articulating curriculum, including the recording of student progress at various levels.

Major concensus among the participants were that the articulation meetings were substantive and meaningful and expressed concern for continuation efforts in this respect.

Northeast Wisconsin Technical Institute

Due in great measure to the delineation of the district, it was divided into two major components, i.e., participating school districts located in CESA #3 and participating districts located in CESA #9.

The CESA #3 component organized three workshop meetings. The first being primarily an introduction and orientation to the problem of

curriculum articulation and emphasis being placed in the subsequent workshops on business education and trades and industrial occupations.

The CESA #9 component sponsored a one-day workshop for all educational staff from both institutional levels, i.e., administrators, department chairpersons and faculty in all educational areas.

The large group then broke into small groups by discipline and openly discussed common concerns and possible solutions.

Nicolet College and Technical Institute

This district hosted an initial orientation meeting that was attended by various discipline vocational technical staff and high school superintendents, principals, guidance counselors, LVECs and instructional staff. The initial meeting concentrated on determining viable approaches to follow in subsequent discipline workshops that would involve the instructional staff from the different institutional districts.

The secondary stage was the scheduling of three one-day workshops, with one day being set aside for business education, trades and industrial occupations and general education.

Agendas for each of the three meetings were primarily intended to address the notion of sharing curriculum, working sessions on individualized instruction, validity and course content and the use of advisory committees and also culminating with future anticipated outcomes.

Mid-State Technical Institute and North Central Technical Institute

These two districts jointly hosted one articulation workshop concentrating in the area of business education. Participation was primarily involved in the general orientation and discussion of mutual constraints in the process of articulation of curriculum.

Wisconsin Indianhead Vocational, Technical and Adult Education District

Due to the large geographic size of Wisconsin Indianhead District, it was determined that the workshop participants would be divided into high school districts found in CESA #1 and a second component from CESA #4 and a portion of CESA #5.

The component involved from CESA #1 concentrated generally in the area of business education. One orientation meeting was held with general discussion regarding constraints and problems of articulation.

The second component in Indianhead District, that is, school districts from CESA #4 and a portion of CESA #5 concentrated in the areas of auto-mechanics, power and auto body.

A series of three workshops was held, one being primarily orientation and discussion meeting and potential direction for future progress. It was ascertained at the first meeting that the DACUM approach would be modified and to concentrate also in the area of competency based instruction.

The second workshop was the actual identification of competencies along with the homogenization of the competencies into a modified DACUM approach.

The third and last workshop was a two-day workshop and was a continuation of the efforts from the previous workshop in respect to competency identification and homogenization with a modified DACUM approach.

It was very apparent that a great deal of progress was made in the Indianhead District and the results might lend themselves to transportability to other districts within the state.

Distributive Education Intensified Workshop

Distributive educators from both institutional levels were invited to attend the four-day workshop from Blackhawk Technical, Gateway Technical,

Waukesha County Technical and District One in Eau Claire.

Workshop efforts were addressed to the area of competency based instruction utilizing the 983 competencies identified by the Lucy Crawford Study and the Interstate Distributive Educational Consortium. A culminating activity of the workshop was the formulation of a plan of action for participants from each of the four technical districts for continuation efforts in the articulation process.

A follow-up meeting was held approximately two months later to discuss problems encountered and to assure that progress had been made on initial plans made at the intensified workshop.

Articulation Model

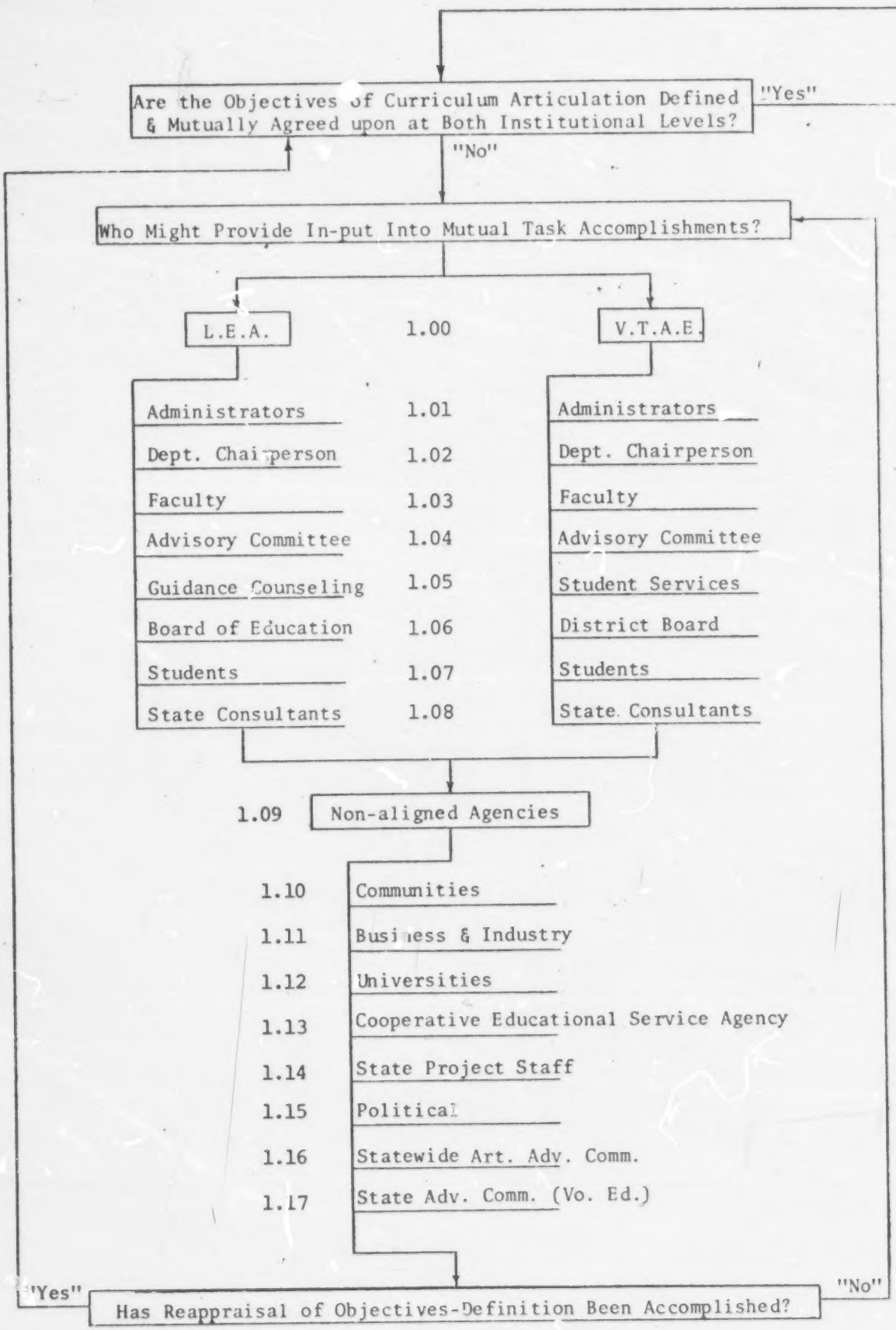
It would appear to be over zealous to think that one comprehensive model for implementation would suffice for all applications--this is not the situation. Therefore, the following implementation model is stated in "global" terms and should be construed to represent only a suggestive series of steps and considerations that one might make in local implementation of vocational educational curriculum.

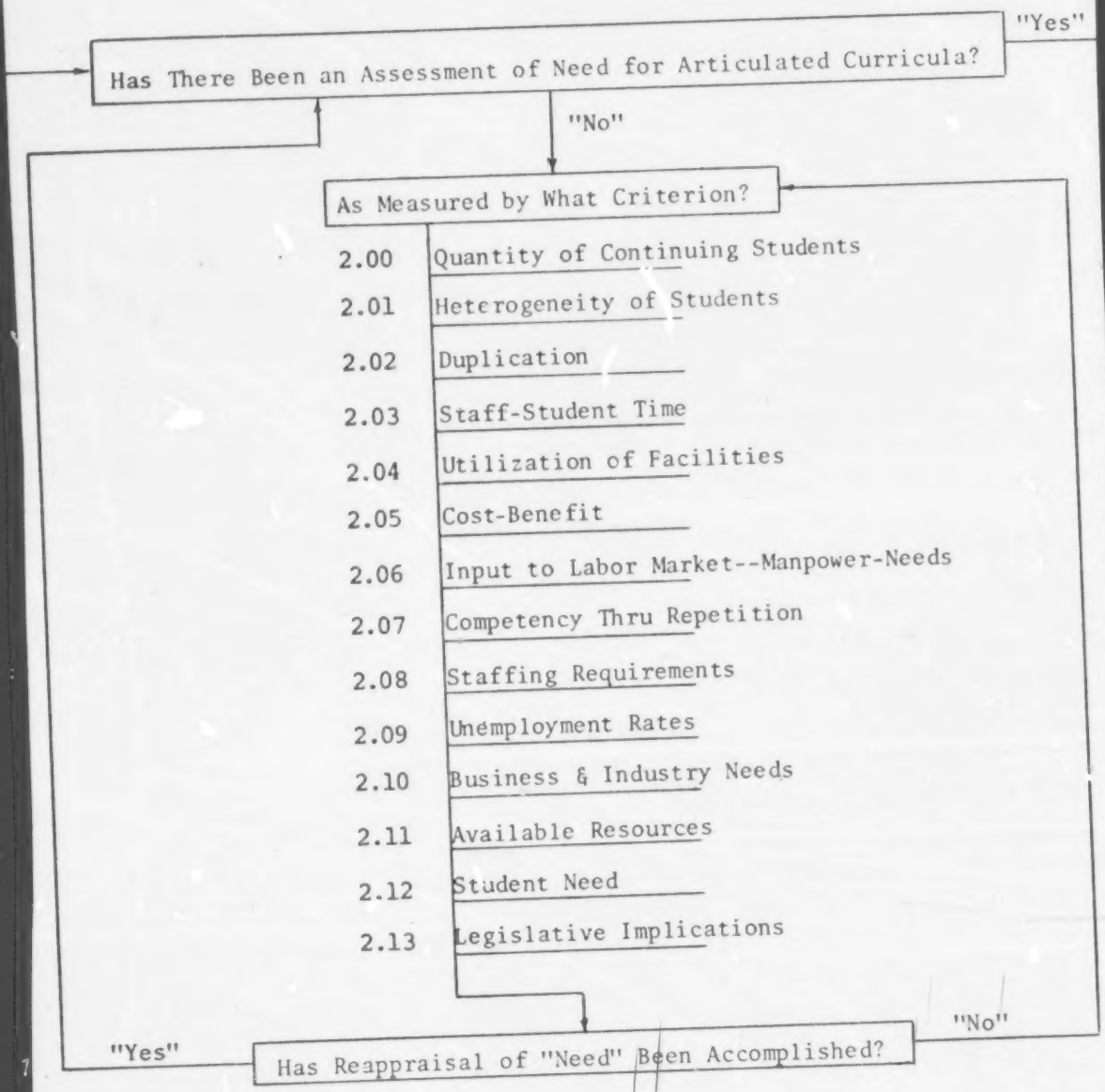
The model has been organized into seven sequential steps that are considered to be critical to the overall implementation process. In addition, it has been further defined by a "yes" or "no" situation, that is, either a go or no go circumstance in the process. The model analyst is advised to pursue the arrowed path dependent upon whether the response to the primary question is either "yes" or "no". Immediately following the schematic models are a series of clarifying statements that are chronologically cross-referenced to the number indicated in the body of the schematic model.

The reader is further advised that progression through the schematic model is precluded by a "yes" response to the primary question. That is, upon receiving a "no" response, the analyst must pursue the progression indicated on that page until a "yes" response is available to the primary question. The primary steps are as follows:

1. Are the objectives of curriculum articulation defined and mutually agreed upon at both institutional levels?
2. Has there been an assessment of need for articulated curriculum?
3. Does a rationale network of program priorities exist?
4. Has an implementation method and/or strategy been identified?
5. Does a communications network exist between the institutional levels?
6. Does an evaluation process exist?
7. A recycle subroutine that directs the analyst to either an annual review or a loop-back to primary question #1 which will dictate a reprocessing cycle within the schematic model until a "yes" response is eventually acquired.

Step 1


Are the Objectives of Curriculum Articulation Defined & Mutually Agreed upon at Both Institutional Levels?
"Yes"
"No"
Who Might Provide In-put Into Mutual Task Accomplishments?
L.E.A.
1.00
V.T.A.E.
Administrators 1.01
Dept. Chairperson 1.02
Faculty 1.03
Advisory Committee 1.04
Guidance Counseling 1.05
Board of Education 1.06
Students 1.07
State Consultants 1.08
Administrators
Dept. Chairperson
Faculty
Advisory Committee
Student Services
District Board
Students
State Consultants
1.09 Non-aligned Agencies
1.10 Communities
1.11 Business & Industry
1.12 Universities
1.13 Cooperative Educational Service Agency
1.14 State Project Staff
1.15 Political
1.16 Statewide Art. Adv. Comm.
1.17 State Adv. Comm. (Vo. Ed.)
"Yes"
"No"
Has Reappraisal of Objectives-Definition Been Accomplished?


Has There Been an Assessment of Need for Articulated Curricula?
"Yes"
"No"
As Measured by What Criterion?
2.00 Quantity of Continuing Students
2.01 Heterogeneity of Students
2.02 Duplication
2.03 Staff-Student Time
2.04 Utilization of Facilities
2.05 Cost-Benefit
2.06 Input to Labor Market--Manpower-Needs
2.07 Competency Thru Repetition
2.08 Staffing Requirements
2.09 Unemployment Rates
2.10 Business & Industry Needs
2.11 Available Resources
2.12 Student Need
2.13 Legislative Implications
Has Reappraisal of "Need" Been Accomplished?
"Yes"
"No"

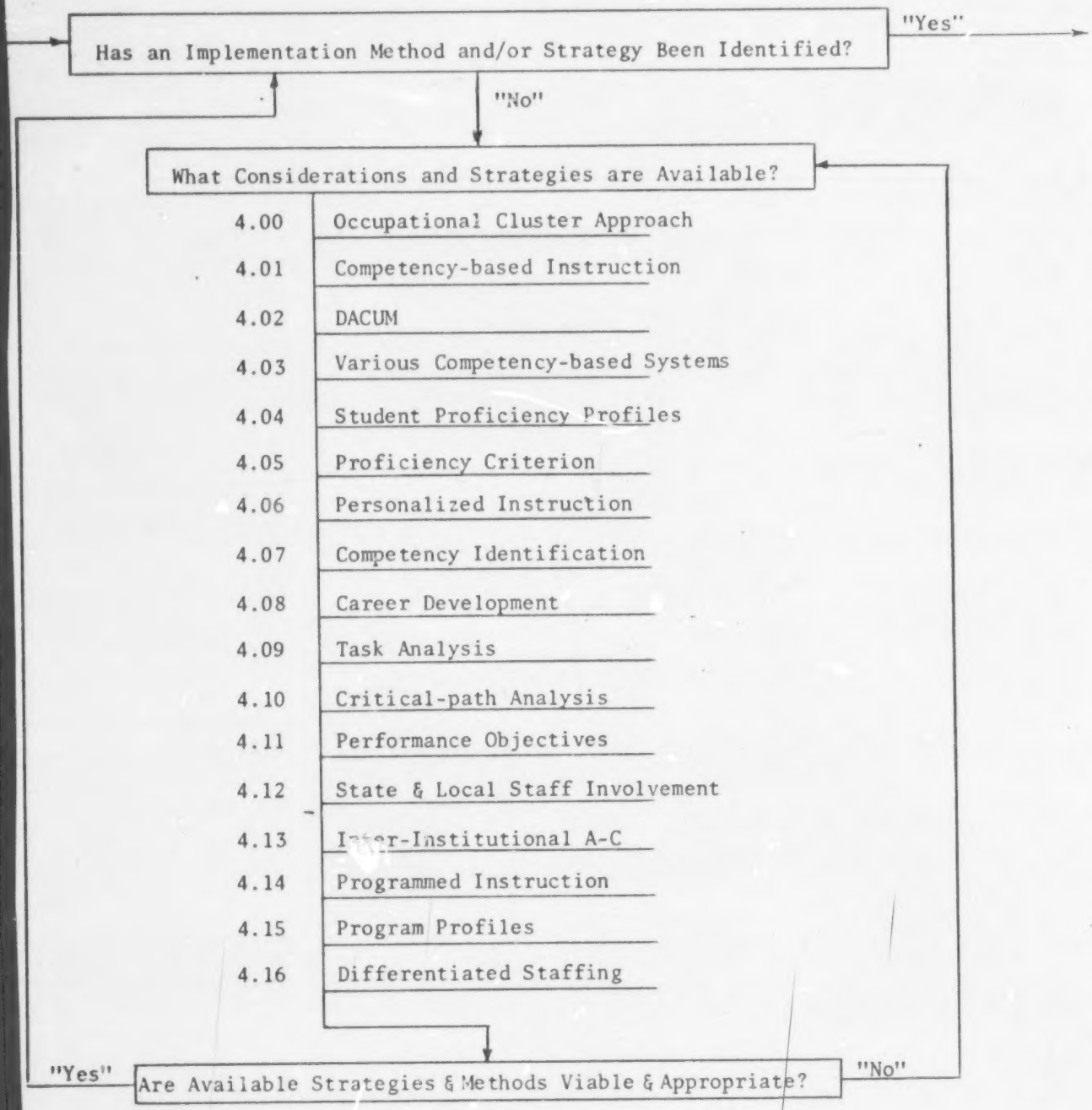
Have Program Priorities Been Rationally Developed? — "Yes"

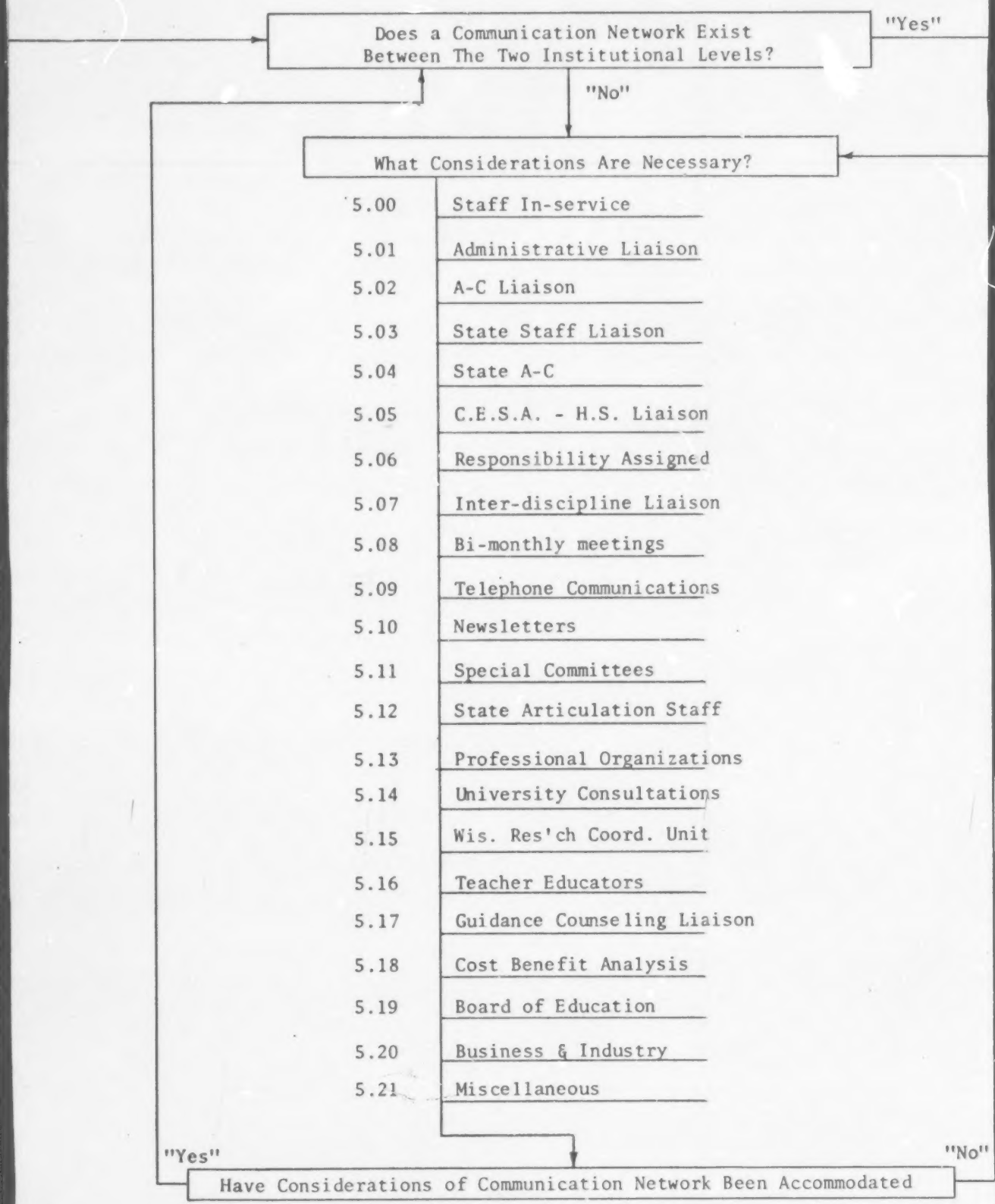
"No"

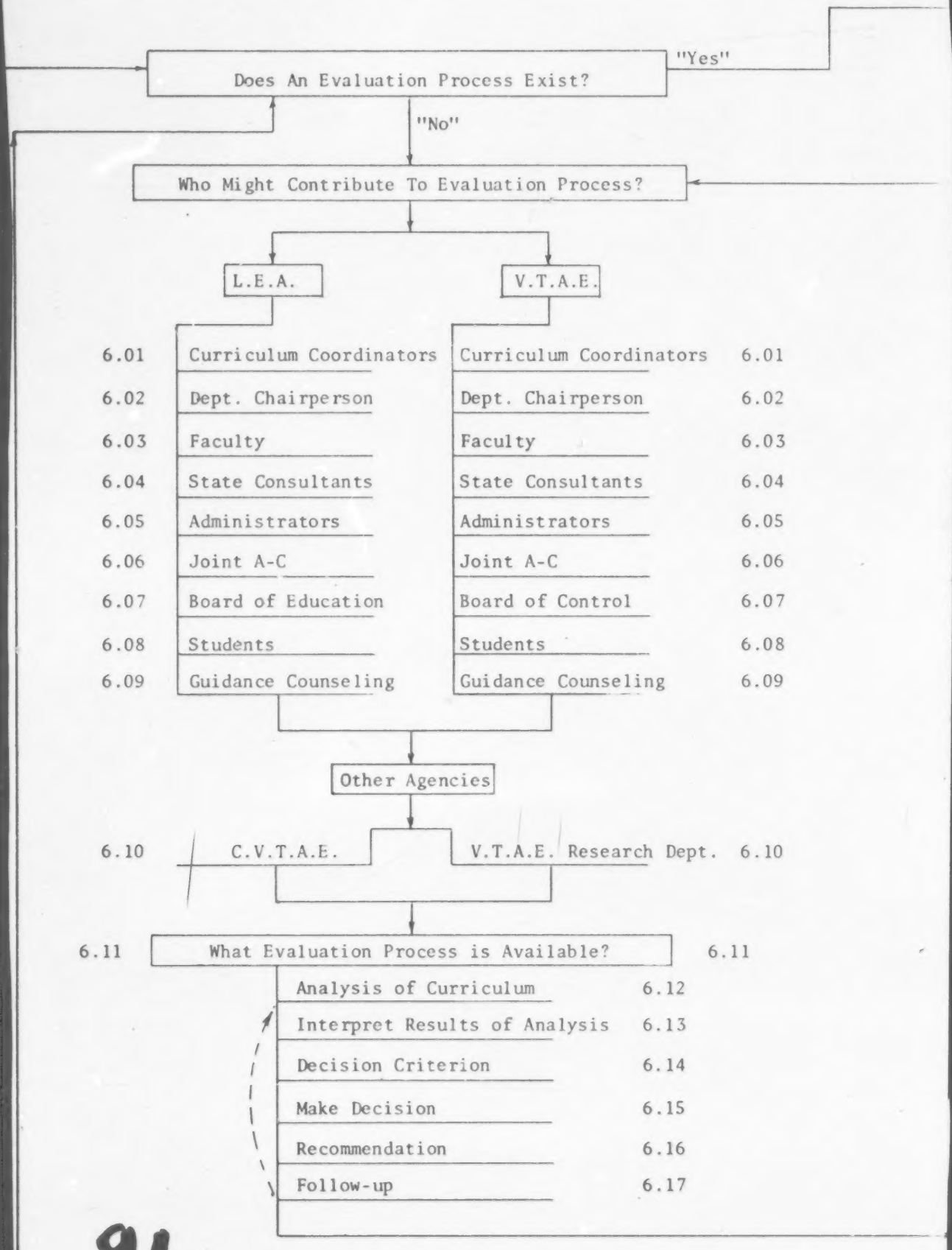
What Considerations Should Be Made?

3.00	Communications
3.01	Cooperation
3.02	Coordination
3.03	Local Autonomy
3.04	Planning Responsibilities
3.05	Time Constraints
3.06	Cost of Implementation
3.07	Evaluation of Program
3.08	Delegation of Authority
3.09	State Office Endorsement(s)
3.10	Organizational Process
3.11	Financing Implementation
3.12	Decision-making
3.13	Policy Statements
3.14	Bureaucratic Anxieties
3.15	Space Requirements
3.16	Clerical demands
3.17	Institutional Alternatives
3.18	Student Alternatives
3.19	Availability of Alternatives
3.20	Advanced Standing/Placement
3.21	Student Profiles
3.22	Career Education/Development
3.23	F.T.E. and A.D.M.

"Yes" — Has Reappraisal of Program Rationale Been Accomplished? — "No"


Has an Implementation Method and/or Strategy Been Identified?
"Yes"
"No"
What Considerations and Strategies are Available?
4.00 Occupational Cluster Approach
4.01 Competency-based Instruction
4.02 DACUM
4.03 Various Competency-based Systems
4.04 Student Proficiency Profiles
4.05 Proficiency Criterion
4.06 Personalized Instruction
4.07 Competency Identification
4.08 Career Development
4.09 Task Analysis
4.10 Critical-path Analysis
4.11 Performance Objectives
4.12 State & Local Staff Involvement
4.13 Inter-Institutional A-C
4.14 Programmed Instruction
4.15 Program Profiles
4.16 Differentiated Staffing
"Yes"
Are Available Strategies & Methods Viable & Appropriate?
"No"


Does a Communication Network Exist Between The Two Institutional Levels?
"Yes"
"No"
What Considerations Are Necessary?
5.00 Staff In-service
5.01 Administrative Liaison
5.02 A-C Liaison
5.03 State Staff Liaison
5.04 State A-C
5.05 C.E.S.A. - H.S. Liaison
5.06 Responsibility Assigned
5.07 Inter-discipline Liaison
5.08 Bi-monthly meetings
5.09 Telephone Communications
5.10 Newsletters
5.11 Special Committees
5.12 State Articulation Staff
5.13 Professional Organizations
5.14 University Consultations
5.15 Wis. Res'ch Coord. Unit
5.16 Teacher Educators
5.17 Guidance Counseling Liaison
5.18 Cost Benefit Analysis
5.19 Board of Education
5.20 Business & Industry
5.21 Miscellaneous
"Yes"
"No"
Have Considerations of Communication Network Been Accommodated


Does An Evaluation Process Exist?
"Yes"
"No"
Who Might Contribute To Evaluation Process?
L.E.A.
V.T.A.E.
6.01 Curriculum Coordinators
6.02 Dept. Chairperson
6.03 Faculty
6.04 State Consultants
6.05 Administrators
6.06 Joint A-C
6.07 Board of Education
6.08 Students
6.09 Guidance Counseling
Curriculum Coordinators 6.01
Dept. Chairperson 6.02
Faculty 6.03
State Consultants 6.04
Administrators 6.05
Joint A-C 6.06
Board of Control 6.07
Students 6.08
Guidance Counseling 6.09
Other Agencies
6.10 C.V.T.A.E.
V.T.A.E. Research Dept. 6.10
6.11 What Evaluation Process is Available? 6.11
Analysis of Curriculum 6.12
Interpret Results of Analysis 6.13
Decision Criterion 6.14
Make Decision 6.15
Recommendation 6.16
Follow-up 6.17

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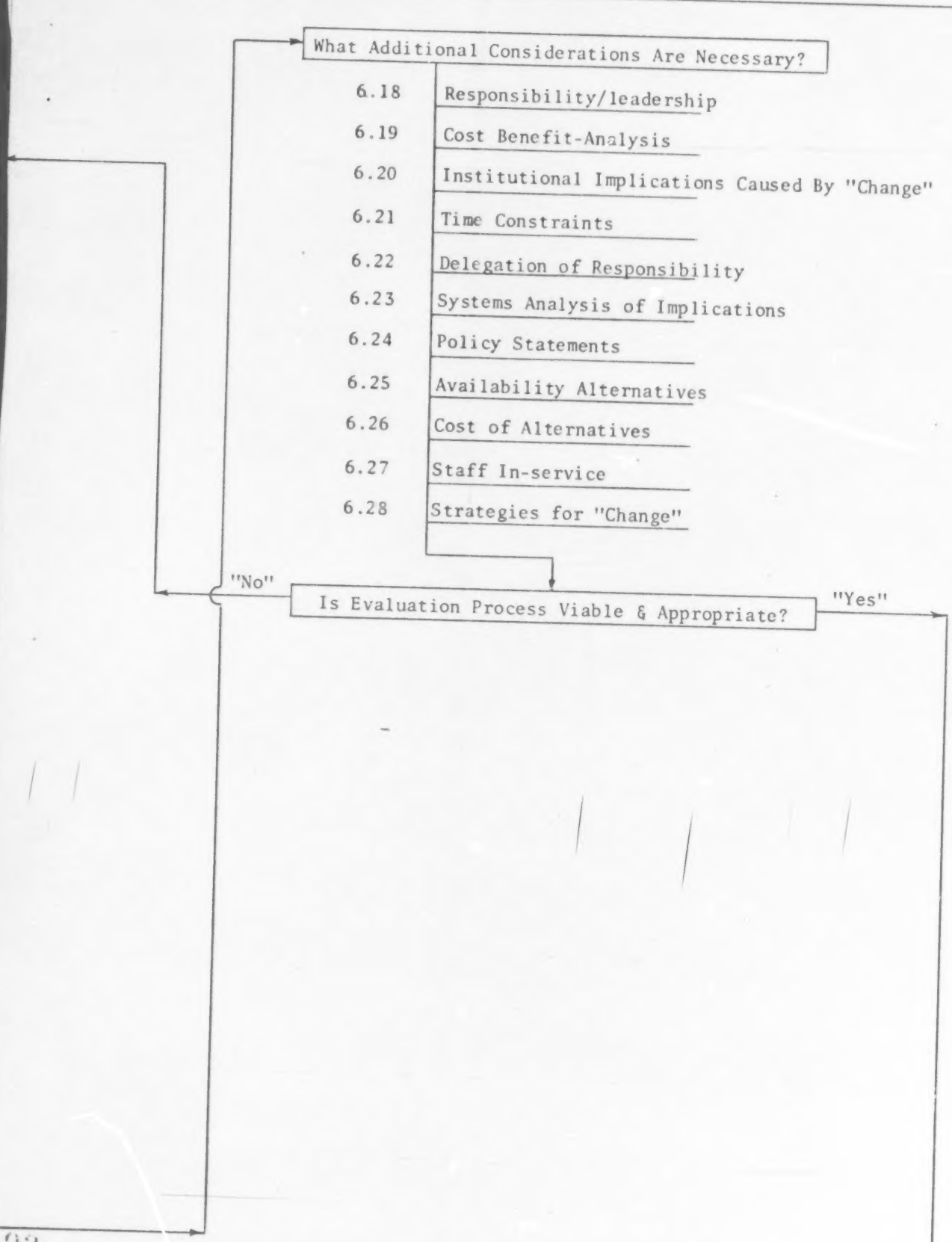
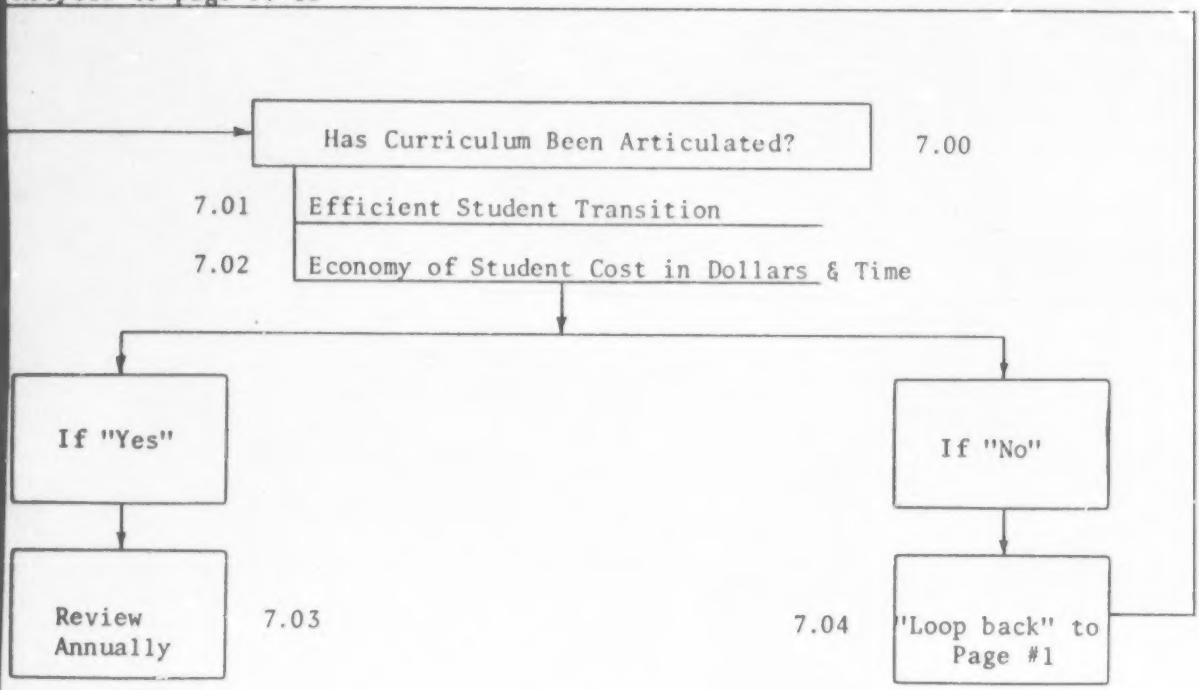

What Additional Considerations Are Necessary?
6.18 Responsibility/leadership
6.19 Cost Benefit-Analysis
6.20 Institutional Implications Caused By "Change"
6.21 Time Constraints
6.22 Delegation of Responsibility
6.23 Systems Analysis of Implications
6.24 Policy Statements
6.25 Availability Alternatives
6.26 Cost of Alternatives
6.27 Staff In-service
6.28 Strategies for "Change"
Is Evaluation Process Viable & Appropriate?
"No"
"Yes"

Step 7

Recycle to page IV-30



Step 1

1.00 L.E.A.-V.T.A.E.: The subroutine indicated here, reflects activities both on the part of the vocational, technical and adult district and the feeder high school districts designated as L.E.A. or Local Education Agencies. The articulation process cannot fully be implemented without total involvement on the part of all individuals so involved.

1.01 Administrators: Administrators and attendant supervisory staff must be involved at an early time in the process and illustrate their respective endorsement to their respective educators. It might be also advisable to provide liaison between administrators of the L.E.A.'s and the V.T.A.E.'s as well. It is assumed that if such liaison is evidenced on the part of chief administrators between institutional levels, that this same communications will be evidenced by other members within this subgroup, that is, department chairperson, faculty, discipline advisory committees, guidance boards, students and state consultants.

1.02 Department Chairperson: If there is to be continuity of program content, it is imperative that the department chairperson assume the responsibility not only for vertical articulation within their own institution, but horizontal articulation between their respective counterparts in the vocational, technical and adult education institution.

1.03 Faculty: For the same reasons indicated in 1.02, it is imperative that faculty members at both institutional levels institute curriculum coordination communications networks both within their own institutions and between the L.E.A. and the V.T.A.E. representatives.

1.04 Discipline Advisory Committees: Frequently certain representatives of business and industry will participate in both high school and post-high school advisory committees. When this happens, there is an avenue of communications, however, more frequently there is not dual participation. It, therefore, seems advisable to have a liaison between the V.T.A.E. and the L.E.A. advisory committees for both vertical and horizontal articulation.

1.05 Guidance Counseling and Student Services: For obvious reasons, a communications network and program input must be provided by the student services and the guidance counseling for horizontal and for vertical articulation.

1.06 Board of Education and District Board: Eventual decisions relating to monetary matters are ultimately going to be presented to the Board of Education and/or the District Board. It is therefore, imperative that these control boards be advised of activities relevant to articulation prior to financial requests.

1.07 Students: Frequently, one of our greatest sources of program feedback comes from the interpretations of the content of the students. It is not implied that students should necessarily dictate the entire curriculum content, but their input should certainly be given consideration.

1.08 State Consultants: It is logical to assume that the state consultants, that is, those at the DPI and the VTAE should provide accelerated communications, coordination and cooperation between their own agencies. In addition to this, the fact that the state consultants are aware of activities going on throughout the state, the local districts should consider them as an invaluable source of transportability of other systems being used throughout the state and nation.

1.09 Non-aligned Agencies: Certain agencies and committees, etc., exist throughout the state that are neither directly associated with the local school districts or the vocational, technical and adult education districts.

These units represent relatively untapped resources that could be contributory to the cause of curriculum articulation.

1.10 Communities: As in the case of any vocational education program, there must be certain input from representations throughout the communities. This is formally accomplished through the use of advisory counsels, however, input from certain citizens may come in a less structured form.

1.11 Business and Industry: It goes without saying that invaluable contributions made by the membership of business and industry should be considered a mandate for program implementation.

1.12 Universities: Our state university system abounds with educators of high technology and expertise. Efforts should be extended to secure such persons who can provide advantageous input towards curriculum articulation.

1.13 C.E.S.A.: The organizational structure of a cooperative educational service agency lends itself to direct communications to the public school districts within its geographic confines.

This project did not necessarily utilize the services of the C.E.S.A. due to overlapping geographic boundaries within the confines of a single vocational, technical and adult education district.

However, this should not preclude the possible utilization of the cooperative educational service agency as a very strong link in the communications, cooperations and coordinations chain.

1.14 State Project Staff: Staff members of the state articulation project staff should be consulted for suggestions and recommendations. This might include staff representation from the terminated UW-Stout articulation project as well as the contemporary state project staff now being administered from the State Board of Vocational, Technical and Adult Education.

1.15 Political: The reader is advised to consider political implication to future curriculum articulation efforts from the standpoint of legislation, either current or pending that might effect such vocational funds that would be supportive of articulation efforts.

1.16 Statewide Articulation Advisory Committee: Approximately twenty educators throughout the state from many educational levels have participated in advisory committee meetings over the 1975 fiscal year. The insights of these people should be considered as a continuous resource for future articulation efforts.

1.17 State Advisory Committee for Vocational Education: Since curriculum articulation has universal implication throughout the state, it would seem highly advisable that this committee should be kept current on efforts being provided in the area of articulation of vocational education curriculum throughout the state.

Step 2

2.00 Quantity of Continuing Students: The impact of total curriculum articulation could be further magnified by an analysis of quantities of continuing students. The reader is cautioned that the term "continuing students" does not necessarily imply the student who moves directly from the secondary program to the vocational, technical and adult education institution.

Many high school graduates may interrupt their formal education by entering the labor market directly upon graduation and/or through marriage or military, etc. These individuals should also be considered as continuing students.

2.01 Heterogeneity of Students: The analyst is advised to consider that the post-high school program serves a highly heterogeneous group of individuals. They may be persons coming directly from high school programs with previous orientation to the specific subject matter, they may be individuals who momentarily interrupted their formal education or they may be at doubts changing their occupational skills and abilities.

Conversely, the high school vocational program must serve more than one need of their respective students--certain students will upon graduation from high school, continue directly into the post-secondary program, however, even these students may have had one, two or three of preliminary preparation in the subject matter or they may not have pursued any vocational training in high school. In addition to that, the high school program must meet the needs of the terminal student who is entering directly into the labor market and will not receive continued formal vocational education.

2.02 Duplication: There may be serious implications involved in the economy of student time and dollars in providing duplicative course content in the high school-vocational high school programs. The reader is further advised to review consideration 2.07, i.e., competency through repetition.

2.03 Staff-Student Time: One should give consideration to the efficient use also of staff-student time through the duplication process.

Furthermore, it must be recognized that the primary responsibility of staff is to the student and therefore, when utilizing staff time for articulation efforts, that it is appropriate to consider possible reimbursement in the form of either time or dollars to the participating staff member.

2.04 Utilization of Facilities: Consideration must be given to the fact that in many institutions at both levels, there are certain equipment and facilities that lend themself to both high school and post-high school vocational education. In the event that such facilities and equipment are not fully utilized, it becomes imperative that we accommodate mutual utilization.

2.05 Costs: It is impossible to consider a program implementation without considering the intended costs. However, the cost of implementation should be made upon the basis of a cost-benefits analysis.

2.06 Input to Labor Market--Manpower-Needs: Certain critics of curriculum articulation feel that it is a poor dollar investment to train individuals for unemployment.

Since we cannot control an individual's potential employment capacity, it seems that our primary objective is to provide occupational training to the student in terms of the lowest cost in time and dollars to the individual with manpower needs being considered secondary.

2.07 Competency Thru Repetition: It is a valid consideration to make that certain individuals will improve their skill, knowledge and attitudes through repetitive curriculum content. However, we must identify the students that need repetition and provide it when advisable, but not to "turn off" individuals who have already mastered the competency.

2.08 Staffing Requirements: Any consideration towards implementation of articulation must include staff requirements. It is quite possible that if we are to ever achieve personalize instruction, that is conceivable that we will need to increase staff sizes along with their intended increased costs.

2.09 Unemployment Rates: This consideration is very directly related to 2.06 as indicated above. However, it has become apparent that in past occupational crisis, i.e., war time requirements, etc., we have been able to stimulate our curriculum to the point that we can effectively provide transitions to the occupational training phase. If this is the situation, then considerations might be given to economy of student time and dollars regardless of the employment or unemployment rates prevalent throughout our territory.

2.10 Business & Industry Needs: As in any other vocational education program, it is imperative that we consider the needs of business and industry when establishing our need for articulation curriculum.

2.11 Available Resources: It is also obvious that we must review what available resources we have at our command, be either in the time in the case of persons, equipment, facilities, etc.

2.12 Student Need: Probably the most obvious of all needs assessment is that of student need. This must be accommodated on the basis of what the students feel is a relevant vocational program for themselves--this information should be incorporated into the final curriculum content and planning.

2.13 Legislative Implications: Since program implementation is contingent upon available resources, it imperative for the vocational educators be aware of what financial assistance might be available for implementation of curriculum articulation.

Step 3

3.00 Communications: Many forms of communications delivery systems exist. It is not the intent of this model to prescribe which ones are most appropriate, as systems will very from one district to another. It is only the intent of this model to prescribe alternative delivery systems and recommendations.

3.01 Cooperation: Cooperation cannot take place without first having established effective communications. As in the case of communications, cooperation may take one or more of many forms--it may be sharing of facilities, ideas, curriculum, etc.

3.02 Coordination: Coordination cannot take place without first having established communications and cooperation--coordination should imply only the effective utilization of facilities, manpower, joint curriculum efforts and miscellaneous educational activities.

3.03 Local Autonomy: There is a proclivity for certain school districts to assume a certain amount of local autonomy. The observer will be well advised to first review the conditions of the local autonomy and provide means to circumvent barriers produced through constraining autonomy concerns.

3.04 Planning Responsibilities: It appears that in past efforts of curriculum articulation, there seems to be a reluctance on the part of representatives from both the L.E.A. and the V.T.A.E. to assume responsibility for the planning stage. It should be noted that decision by committee is frequently time consuming and inefficient--it would be well to eliminate institutional bias and determine responsible positions for decision making and planning.

3.05 Time Constraints: It is obvious that efforts toward such a global implementation as curriculum articulation is, that a great deal of time is required. It is well to recognize that a great deal of time is necessary and make appropriate provisions for same.

3.06 Cost of Implementation: An analysis of the total cost of implementation should be made on the basis of a cost-benefit basis. The observer is also advised to pursue supplementary financial assistance such as potential monies available to the vocational education act, as well as other legislative provisions.

3.07 Evaluation of Program: It is well to accept the posture that program evaluation is an ongoing activity and should be performed at varying stages of program implementation.

3.08 Delegation of Authority: The inherent characteristics of local autonomy, and bureaucratic anxieties tend to cause educators to be reluctant in actually determining who will assume authority and responsibility for articulation efforts.

3.09 State Office Endorsement(s): Implementation planners should maintain a constant liaison with staff members from both the Department of Public Instruction and State Board Offices. If eventual program implemenation is to take place, it will necessitate endorsement of the state office staff(s).

3.10 Organizational Process: The complexities inherent to total articulation of vocational curriculum are so great and demanding that in the effort to attempt to facilitate implementation must include an organizational procedure.

Such procedure must, out of necessity, be dictated by existing local circumstances and cannot be simply stated in a transportable model that would be applicable throughout the state. This responsibility therefore, must rest within the so involved school districts.

3.11 Financing Implementation: An appropriate flow of dollar assistance to cause total articulation is going to only be realized after the agency supplying the necessary finances have been assured that there has been an established need and the objectives are conducive to the educational process.

Sources of financial support may come from the district vocational technical system, local school districts, Department of Public Instruction and the State Board of Vocational, Technical and Adult Education.

3.12 Decision-making: If the decision-making process must be reverted to decision by committee, it is well to consider a decision-making process that is amenable and efficient to all concerned.

3.13 Policy Statements: Most districts will generally have formal policy statements in respect to the administration of their respective school districts. The analyst is well advised to first review policy statements in the event that certain statements might be contradictory to the total implementation process.

3.14 Bureaucratic Anxieties: It may be a matter of job security, philosophic views or a fear of the unknown, but there has been a tendency for educators at both levels to be somewhat apprehensive towards complete communications, cooperation and coordination between their educational counterparts at both educational levels.

3.16 Clerical Demands: The analyst should be aware that certain strategies and methods may make undue clerical demands unnecessary for program implementation. This situation should be evaluated as a part of the organizational process.

3.17 Institutional Alternatives: It becomes a responsibility of educators at both institutional levels to explore what alternative avenues of approach may be considered for program implementation.

3.18 Student Alternatives: It may be advisable through counseling to provide available alternatives to the student in his/her decision-making process toward his/her career development.

3.20 Advanced Standing/Placement: The analyst is well advised to explore potential problem areas and constraints involved in advanced standing and placement and to ascertain that the significance of advanced/placement are understood by all concerned.

3.21 Student Profiles: In exploring the possibilities of advanced/placement, the program planners might consider such delivery vehicles as the student profile, exemplified by the DACUM approach.

3.22 Career Education/Development: Total curriculum articulation must out of necessity include an increased emphasis in career education/development. If the student is to make a wise occupational choice, he/she must do it on the basis of a foundation of basic information.

3.23 F.T.E. and A.D.M.: Implications created by total curriculum articulation must circumvent the problems instituted by the funding formula, including Full Time Equivalency and Average Daily Membership for the two institutional levels.

Step 4

4.00 Occupational Cluster Approach: A questionnaire submitted to participants of curriculum articulation workshops during the 1975 school year provided evidence that an occupational cluster approach to curriculum articulation is not as viable as possibly competency based instruction.

However, the examiner should be advised that there is a possibility of homogenization of both the occupational cluster approach with the competency based instruction approach.

4.01 Competency-based Instruction: Far and above the most popular response to the above mentioned questionnaire, in respect to viability in curriculum articulation.

The reader is advised to secure available research in the appendix section of this report. Also, direction is given to the competency based instruction directory listing educators throughout the state of Wisconsin utilizing competency based instruction.

4.02 DACUM: Time and space precludes a comprehensive description of the DACUM approach. However, it is a delivery system developed at Holland College in Nova Scotia that reduces curriculum content and student profile into a convenient format.

4.03 IDEC: A synonym for interstate distributive education consortium and a delivery system utilizing an approach to curriculum development through the identification and analysis of occupational competencies.

4.04 Student Proficiency Profiles: An analysis of student proficiency in respect to a specific competency. Orientation to be found with familiarization of the DACUM approach.

4.05 Proficiency Criterion: A numeric analysis or evaluation of student proficiency used in the student profile.

4.06 Personalized Instruction: In the event that a decision is made to utilize competency based instruction, DACUM approach and student proficiency profiles, it only follows that the implications of personalized instruction must be evaluated. The observer is reminded that with the advent of personalized instruction, one must also anticipate attendant increased costs.

4.07 Competency Identification: The identification of occupational competencies is a time consuming and tedious task. It should be noted that the more detailed and specific the competency identification is, the more costly it is to implement. Conversely, the more general the competency identification is, the less effective it may be.

4.08 Career Development: If high school students are expected to make occupational decisions for continuing education into the post-secondary institutions, this decision making process should be supplemented by a career development program on the secondary level.

4.09 Task Analysis: The observer should consider the process of task analysis in implementing an articulated curriculum.

This is merely a process of idenifying microtasks within the process of implementation along with realization of their implications.

4.10 Critical-path Analysis: Another tool available to the program planning process which is a system of organizing tasks in a continuous chain of identified critical tasks.

Proper control and manipulation of the tasks that make up this critical path will allow the planner to exercise a control over the time and cost involved in the entire implementation process.

4.11 Performance Objectives: Objectives for the programs stated in measurable terms. The reader is advised that a performance objective is not considered to be synonymous with a task or a competency. Proficiency of a competency may require the utilization of multiple performance objectives.

4.12 State & Local Staff Involvement: Again, the reader is advised of the necessity of maintaining a liaison between the state and local vocational education staff members, both from the Department of Public Instruction and the Vocational, Technical and Adult Education Boards.

4.13 Inter-Institutional Advisory Committee: It would seem a viable approach towards effective implementation of articulated curriculum to develop an inter-institutional advisory committee that represents both the vocational technical and the public secondary schools. This advisory committee would differ from other discipline advisory committees in that its only responsibility would be that of implementation of articulated curriculum.

4.14 Programmed Instruction: To assist in the process of personalized instruction, the program planner is advised to consider the implementation of program instruction as a means of providing a supplementary educational delivery system.

4.15 Program Profiles: If it is considered appropriate to provide a profile of student competency proficiency then it is also noteworthy to consider a total program profile to aid in the total program implementation.

4.16 Differentiated Staffing: The program planner may wish to consider differentiated staffing as an alternative means of reimbursing vocational education staff.

This process is essentially the same used in most major industries throughout the country in that an individual is reimbursed on the basis of accomplishments and responsibilities.

Step 5

5.00 Staff In-service: It is obviously imperative that if we are to provide total staff involvement that the probability exists of a greater need for increased numbers of staff in-service from the standpoint of total involvement and understanding of the articulation process.

5.01 Administrative Liaison: It was previously mentioned if we are to provide total staff involvement, it becomes necessary to also involve persons in administrative positions at the highest level.

5.02 Advisory Committee Liaison: It is noteworthy to consider the process of communications involving a discipline advisory committees from both secondary and post-secondary institutions. It may be well to consider not only reciprocal membership but also formal reports to the advisory committees respective counterparts in the two institutional levels.

5.03 State Staff Liaison: As was also previously mentioned, it is necessary to accommodate continuing communications between the state staff and local faculty on both institutional levels.

5.04 State Advisory Committee: It would seem that the state advisory committee for vocational education should be periodically updated on progress on the articulation process.

5.05 C.E.S.A. - H.S. Liaison: The Cooperation Educational Service Agency provides a natural communications link. It has the capacity to reach all the high schools within its geographic confines and to aid to the communications process.

5.06 Responsibility Assigned: Again, the assignment of responsibility for the communications tends to be a sensitive matter. However, it is well to set aside any institutional level bias and address the problem at hand in respect to the communications network.

5.07 Inter-discipline Liaison: The problem of inter-disciplinary liaison is both a vertical and horizontal problem of articulation. It is necessary to communicate both within the respective discipline and within the respective institutional level, but it is also necessary to communicate inter-disciplinary and inter-institional levels.

5.08 Bi-monthly Meetings: The planner may consider organization of bi-monthly meetings on a inter-disciplinary and intra-institutional levels.

5.09 Telephone Communications: Probably the single most convenient method of communications but frequently the most forgotten.

5.10 Newsletters: The planner may give consideration to the publication of newsletters from the post-secondary institution and disseminate it amongst the public high school districts within the geographic confines of the technical district.

5.11 Special Committees: Although decision by committee is a slow process, it may be advisable at certain times to develop a special committee for ad hoc tasks.

5.12 State Articulation Staff: The program planner should be aware of the services available through the Wisconsin State Board of Vocational, Technical and Adult Education. Federal funds have been appropriated to support a state articulation project team that is available to any school district throughout the state for concentration and services. This staff will be available at least through the fiscal year 1976.

5.13 Professional Organizations: Organizations such as WAVAE, AVA, WBEA, WEA, etc., should be considered as viable and appropriate channels of communications.

5.14 University Consultations: A vast source of expertise in various fields exists within our state university system. The articulation planner should consider utilizing such persons for the benefit of program implementation.

5.15 State R.C.U.: The planner should utilize the services of the state vocational research coordinating unit located in Madison and also the Center for Vocational, Technical and Adult Education, located at the University of Wisconsin-Stout.

5.16 Teacher Educators: The program planner should consider the necessity of developing the communication link with teacher educators as a matter of an investment in future teacher philosophy in respect to curriculum articulation problems.

5.17 Guidance Counciling Liaison: Since curriculum articulation is a prime concern to the career development of a student, it is necessary for all staff members of the student services and guidance counciling divisions to develop communications network.

5.18 Cost Benefit Analysis: The planner should not address only the cost attendant to the development of a communications network, but also to make considerations of the benefits derived.

5.19 Board of Education: If, in the process of developing articulated curriculum, it becomes necessary to request funds from either board of education or control boards, it is advisable to keep them informed prior to requesting financial endorsements.

5.20 Business & Industry: Vocational educators have long involved business and industry representatives in the development of a program. It might be advisable to consider utilizing the same resource for involvement in communications directly related to the articulation process.

5.21 Miscellaneous: Any other communications delivery systems that one might develop.

Step 6

6.00 L.E.A. - V.T.A.E.: Again, as in Step 1, attention should be directed to multiple responsibilities both on the secondary institutional level as well as the vocational, technical and adult education institutional level.

6.01 Curriculum Coordinators: For obvious reasons, the curriculum coordinators at both levels should be involved both in program planning, implementation and evaluation.

6.02 Department Chairperson: Responsibility for an effective evaluation system has to ultimately rest as the responsibility of the department chairperson. The department chairperson should be considered a catalyst between vertical articulation within the institution and horizontal articulation between the institutional levels.

6.03 Faculty: For obvious reasons, total faculty involvement must be accommodated.

6.04 State Consultants: Again, one is reminded to continuously keep state consultants involved, not only in the program implementation, but in the evaluation process.

6.05 Administrators: Although not expected to participate on an active basis, the administrator should be advised as to the process of the evaluation and its results.

6.06 Joint Advisory Committee: If we are to expect input from joint advisory committees, we should also maintain their support and communications in the matter of program evaluation.

6.07 Board of Education and Board of Control: Again, for obvious reasons it is necessary to maintain a communications system with the control boards in respect to the evaluation process.

6.08 Students: The program planner should give consideration to input to the system from the students that we are serving.

This is not to imply that the student should necessarily participate in the decision making process, but should be provided an opportunity to provide input to the evaluation process.

6.09 Guidance Counseling: If we are to rely upon student services and guidance counselors to provide career development to the student they must also be aware of the evaluation process in providing occupational advice to the student.

6.10 C.V.T.A.E. - Technical Research: Research services are available for the vocational, technical and adult education district.

Although not specifically aligned with local education agencies, the Center for Vocational, Technical and Adult Education at the University of Wisconsin-Stout is also available for research services.

6.11 What Evaluation Process is Available?: The evaluation process should be considered a cycle of tasks within its own right. That is, steps 6.12, 6.13, 6.14, 6.15, 6.16 and 6.17 should be as a total process with a feedback immediately proceeding 6.17 "follow-up" back to 6.12 "analysis of curriculum."

6.18 Responsibility/leadership: Of the responsibility/leadership, consideration has been discussed throughout this model and does not need further clarification.

6.19 Cost Benefit-Analysis: Again, the planner is advised to assess not only the cost but the benefits derived from the evaluation process.

6.20 Institutional Implications Caused by "Change": The planner is advised to anticipate certain implications, constraints and problems that might be incurred as a result of program changes necessitated in the articulation process.

6.21 Time Constraints: It has been mentioned previously throughout this model that the planner must constantly be aware of certain time constraints on persons involved in the articulation process.

6.22 Delegation of Responsibility: Previously mentioned and interpreted in the model and not necessary to again reiterate.

6.23 Systems Analysis of Implications: The planner might consider a systems analysis of circumstances incurred as a result of program modifications.

6.24 Policy Statements: In developing the evaluation process, it becomes necessary for all program implementers to be aware of policy statements of all the school districts so involved.

6.25 Availability of Alternatives: It may be advisable to consider alternative evaluation processes since we cannot anticipate that one evaluation process is going to be applicable to all.

6.26 Cost of Alternatives: An assessment of cost both in terms of dollars and time should be made in respect to the evaluation process.

6.27 Staff In-service: Again an increased emphasis should be placed on staff in-service in order to provide a comprehensive understanding of the evaluation process.

6.28 Strategies for "Change": The program planner may wish to develop methods and strategies that are most applicable to the local situation.

Step 7

7.00 Has Curriculum Been Articulated?: The culminating question in this model is the determination as to whether curriculum has really been articulated.

Subsequent directions are given in steps 7.01, 7.02, 7.03 and 7.04.

7.01 Efficient Student Transition: Through the evaluation process previously mentioned is an efficient student transition evidenced. That is, is the transfer from the secondary institutions to the post-secondary institution as efficient and effective as possible.

7.02 Economy of Student Cost in Dollars & Time: Is there evidence that the transfer is being accommodated at the least cost to the student?

The analyst will now proceed to either of the questions as indicated in 7.03 or 7.04. In the event that the response is "yes," it is suggested that an annual review be provided and that the same process be considered in the implementation of such a review. If the response is "no," the analyst should now loop back to step 1 of the model and proceed through the schematic model as indicated

CHAPTER V

CONCLUSIONS, RECOMMENDATIONS AND OBSERVATIONS

This chapter is subdivided into three sections, i.e., "observations", "conclusions" and "recommendations". The three sections are specifically defined as follows:

Conclusions--Conclusions indicated in this chapter are supported by analysis of the data generated from a questionnaire survey described in Chapter IV. They are not intended to be construed as indisputable "fact" but mere inferences determined by deductive reasoning on the basis of the questionnaire responses.

Observations--Staff members of the articulation project were provided an opportunity to view the workshops and respective articulation efforts from a personal perspective. Such observations do not lend themselves to statistical analysis. However, these observations may be considered as valid when using such information for planning purposes in any continuation project. Such observations are supported only through subjective judgment of the respective observer.

Recommendations--Statements reflecting judgments on the part of project staff members that infer confidence for future utilization in the process of expediting curriculum articulation efforts. Recommendations are based on either observations or conclusions and in some situations, a combination of observations and conclusions.

Observations

1. Effective articulation of curriculum content is only a minor portion of the more global concept of total articulation between secondary and post-secondary institutions.

2. There is not a specific and universal understanding of articulation. The word tends to mean different things to different people.
3. Since the participating agencies were either representives from the technical districts or the public school districts, there was no identifiable catalyst in the decision-making process--and decision by committee is frequently time consuming.
4. The magnitude of the problem of curriculum is so great that the available staff was insufficient in numbers to sufficiently and adequately achieve the large number of predetermined objectives.
5. The large geographic boundaries (statewide) prevented appropriate project staff commitments both in time and energies as well as being a contributory factor in diminished communications.
6. Project staff experienced certain attitudes of mistrust and apprehension of participating educators both at the local and regional levels, including representatives from both the secondary and the post-secondary institutions.
7. There may have been a tendency to rely upon outside consultative services when such services might have been provided by the project staff member.
8. Because of the geographic boundaries of Cooperative Educational Service Agencies and the fact that one CESA may be found in the confines of several vocational, technical and adult districts, it may be advisable to use the VTAE as the catalyst in program planning and preplanning. However, the contact person at that vocational, technical and adult education district should assure that there is a representative from the secondary school systems involved in this preplanning process. The majority of preplanning for

the workshop during this project was performed fairly much by single representatives of the vocational, technical and adult education district. This does not enhance communication, cooperation and coordination.

9. It appears over-zealous to consider that the entire state, i.e., 16 vocational, technical and adult districts and some 420 local education agencies within the geographic confines of those districts can be served from one office.

10. A great deal of time is conserved and results are improved when there is preplanning and communications to the participants of the workshops. It is indeed unfortunate when participants arrive and time is limited at the workshop, that certain efforts must be expended to orient the workshop participant to the objective of the workshop.

11. One of the most frequent deficiencies or problem areas in organizing workshop meetings was related to "teacher release time" on the part of secondary personnel. It should be noted that most or at least a large number of high schools may have only one to two faculty within the discipline area and to release this person is quite prohibitive without securing appropriate substitutes.

School superintendents tended to discourage workshop meetings taking place during school time because of the necessity for hiring substitutes.

It seemed that there was not a great deal of concern on the part of local superintendents to reimburse or be concerned with travel reimbursement nearly as much as the stipend for teacher release time.

12. Although not mentioned in the questionnaire survey, certain workshop participants indicated a great deal of interest and support for the utilization of both competency based instruction and the DACUM approach in respect to student profile.

13. Of the 16 vocational, technical and adult districts, approximately 4 indicated a lack of interest and willingness to participate in this articulation project at this time.

14. The geographic and subsequent time constraints in travel from one office to all 16 districts is highly inefficient, time consuming and expensive.

Conclusions

The following inferences have been drawn from the data provided by the survey questionnaire mentioned in Chapter IV of this report and illustrated in Appendix I.

The question number in the survey is cross-referenced by the numbers shown below.

1. It is a logical assumption that any mean value with 1.00 either positive or negative is sufficiently appropriate to justify a substantial trend in respect to the responses to the question. The mean value for this question being 1.05 with greater than 76% of the respondents either agreeing or strongly agreeing, it can therefore, logically be assumed that the articulation workshops did indeed assist in the upgrading of staff capabilities and to expand and improve articulation in secondary and post-secondary vocational programs.

2. Although the mean value for the responses to this question is only .52, it should be observed that approximately 58% of the participants

did agree that there has been assistance in the identification of taxonomic levels of competencies. However, a large number of participants were either undecided or disagreed.

3. The substantially high mean value of +1.20 is further supported by the fact that 75 participants out of the N of 86 or approximately 87% either agreed or strongly agreed that competent consultant services should be available after participation in articulation workshops.

4. Response to this question tends to suggest a "mandate". No other question had a mean value response as high as this one with the exception of question number 31 which has an exactly similar mean value response. The mean value of 1.36 strongly supports the additional data that shows almost 90% of the response indicating agreement or strong agreement that there is a need to prepare staff members of the two institutional levels to assume responsibilities for aiding subsequent articulation in regular classroom articulation.

5. Although the mean value of responses for this question is less than 1, i.e., +.78. The reader is advised to note that 22 respondents were undecided and 7 did not respond to the question. This total of 29 is approximately 34% of the participants either undecided or not responding to the question. One might observe that 52 respondents or 60% of the participants questioned, either agreed or strongly agreed that the workshops did provide in-service education to upgrade competencies in diagnosing and analyzing curriculum articulation needs. Conversely, only 5 participants disagreed or strongly disagreed which would thereby lend credence to the positive reaction to this question.

6. It is valid to assume that competency based instruction is certainly considered as a prime vehicle in effective curriculum articulation. Sixty-six respondents or approximately 77% of the participants questioned, i.e., 1.05 mean response value supports this claim.

7. The rather small +.34 mean value response plus a high response to undecided tends to suggest that in general, the participants did not feel that the cluster approach is a viable delivery vehicle for effective articulation. The reader is also advised to note that a low mean value to this response lends additional support to the response previously mentioned in question 6 that a competency based instruction is, in effect, a viable delivery vehicle for curriculum articulation.

8. Because of the negative nature of this question, it is advisable to consider a +.87 mean value along with 60 responses or approximately 70% of the participants indicating that they did not have sufficient time to work at the writing tasks in the workshop, that it should be considered advisable in subsequent workshops to provide more time for the performance of writing tasks.

9. With a mean value of -.02, it is hardly significant to consider the responses to this question as to establishing any sort of a trend in respect to the participants clearly understanding what was to be accomplished at the first meeting.

10. It would not be particularly valid to assume a clear indication from the respondents due to a relatively small mean value of +.17. In addition, the responses tended to group around the center response of

undecided, 32 agreed and 21 disagreed with 17 undecided. This constitutes a total of 70 participant responses in the middle of the curve or approximately 91% of the participants not clearly agreeing or disagreeing with the question.

11. It appears that with a fairly high mean value of .89 coupled with the fact that 69% of the participants either agreed or strongly agreed that the workshop staff did make itself personally available to them.
12. It further appears relatively safe to assume also that the participants did feel that their personal interactions with the staff members were an important part of the workshop. This is evidenced by a +1.05 mean value and approximately 71% of the respondents either agreeing or strongly agreeing.
13. The reader is advised again, that since this is the negative type of question that a positive response tends to suggest that there was not sufficient time for the writing. It was realized also during the course of the project year by the staff that we probably should have accommodations in the future for more time for participant writing tasks. It is also difficult to establish what "more time" is. It might be considered that the time for writing be not predetermined but be provided for in advance in the event that additional time is needed.
14. It appears from the -.18 mean value plus 77% of the respondents either agreeing, undecided or disagreeing, that there were not definite feelings in respect to a series of one-day workshops being a sufficiently long time to provide adequate learning for participants.
15. Again, with the small mean value and with 76% of the participants either only agreeing or undecided or disagreeing, it does not appear that anything conclusive can be interpreted from the responses of this question.

16. A mean value response of +.57 certainly does not represent what would be considered a mandate. It is difficult to interpret with the relatively low mean value for this question. However, it does have a plus factor and that in itself may be sufficient.

17. With an N of 86 and 11 persons not responding or approximately 13% not responding, a considerable impact is caused on the computation of the mean value. If the reader were to not consider the "no responses" the mean value for this question would be +.90 which begins to approach a significant indicator of the feelings of the participating group.

18. Again, it is advisable to eliminate the impact of participants not responding to this question. Over 20% did not respond and this again does have a significant impact on the mean value. Computing the mean value without regard to the new responses, it changes from a +.07 to a -.52 which is a highly negative answer or response, coupled with the fact that the responses given all center around undecided with the mode value of 22 being "undecided". Therefore, it is probably best from the standpoint of integrity in interpreting this response to ascertain that there was an absence of strong feelings about this question.

19. The reader is advised that this question is worded in a negative vernacular, therefore, a negative response constitutes a positive reaction. In essence, a mean value of -.46 tends to suggest that there is fair unanimity amongst the participants that the Stout Articulation Project staff members, although representing a third party, do in effect, understand or attempt to understand the problems associated with secondary as well as post-secondary staffs.

20. With 14% of the participants nonresponding, it would appear that the -.42 mean value is overstated. Therefore, the 12 participants not responding were subsequently eliminated from the competition of the mean value with a revised mean value of -.08. Again, this in itself, is not particularly conclusive in respect to the total concensus of the control group. Therefore, the response to this question should not be considered in the analysis of the data.

21. With a +.93 mean value for the responses to this question, it appears logical that there is a concensus on the part of the group that almost all participants did in effect try hard to contribute to the success of the workshop.

22. The mean value of +1.29 being very high along with 77 of the 84 respondents either agreeing or disagreeing or approximately 90% of the participants agreeing with only 2 individuals disagreeing, it would appear that the survey group has provided a mandate that we should recognize that this type of workshop is beneficial and constructive towards the articulation of curriculum.

23. With a high mean value for the response of the +1.15, and approximately 80% of the respondents agreeing or strongly agreeing, especially with such a large number strongly agreeing, again, it should be interpreted as a mandate on the part of the participants that in order for the workshops to be meaningful, it is necessary to provide follow-up workshops.

24. In interpreting the responses to this question, especially with a mean value of -.09 and the concentrated responses centering around agreeing, undecided and disagreeing, it is believed that the responses to this should not be considered valid and/or reliable.

25. A mean value of +.80 should be considered as significant evidence that the participants felt that their background was sufficient for them to benefit from the activities of the workshops.

26. A relatively high mean value of +1.05 suggests that the respondents did feel that their time and efforts were appropriately spent while participating in the workshop. This is further reinforced by the fact that only 6 of the 86 participants disagreed that their time was well spent, i.e., approximately 80% of all respondents feeling that it was a contributory experience.

27. Due to the low positive mean value for this question, plus the fact that the majority of the responses, i.e., 77% of them were either agreed, undecided or disagreed, it is somewhat safe to assume that the participants were adequately informed of the purpose of the workshop prior to the actual workshop itself. This should be rectified in any future articulation workshops by those so charged with that responsibility.

28. With this very high +1.28 response value for this question, along with the fact that 88% of the respondents either agreed or strongly agreed that it should be considered as a mandate for concensus from the participants that similar workshops should be provided to the staff of both institutional levels.

29. In view of the fact that a +.70 is a relatively high value for the responses to this question, along with the rather ambiguity implied in the question and subsequent response, it may be assumed that the respondents can or do feel encouraged to assist others in their respective school systems in understanding and undertaking new approaches for articulation of secondary and post-secondary programs.

30. A +1.15 mean value being quite substantial plus the fact that no respondent either disagreed or strongly disagreed and only 7 were undecided, leaving approximately 87% of the respondents either agreeing or strongly agreeing, it is quite obvious that they did in effect gain and appreciable amount from the opportunity to interact with other educational participants.

31. There are several significant characteristics to this question, namely all 86 participants responded to it. There were no strongly disagreeing statements nor disagreeing statements. In addition, it reflected one of the very highest mean values for the response, i.e., +1.36 with 76 of the 86 participants responding either agree or strongly agreeing representing a positive response of 88% of the respondents. It is somewhat apparent that the participants of the various workshops throughout this fiscal year have expressed a concensus that they wish to see such workshops continue in subsequent school years and the workshops were worth their while in attending.

Recommendations

1. Articulation efforts should be expanded beyond just curriculum articulation and should be both horizontal and vertical in nature and should encompass K-16 grade levels.
2. A consistent and universal definition of articulation should be established and disseminated on a statewide basis.
3. There appears to be an advantage in identifying one contact person from each of the two institutional levels (V.T.A.E. and L.E.A.) from within the specific technical district. This would tend to encourage a communications network between the parties involved.

4. Increase project staff size to provide a more comprehensive statewide effort.

5. From a logical standpoint, if an articulation staff member attempts to serve more than approximately 6 vocational, technical and adult districts, there is a tendency for the person's time and efforts to become diluted to the point of inefficiency and inadequacy.

6. It is advisable to use the VTAE as the catalyst in program planning and preplanning. However, the contact person at that vocational, technical and adult education district should assure that there is a representative from the secondary school systems involved in this preplanning process.

   The majority of preplanning for the workshop during this project was performed primarily by single respresentatives of the vocational, technical and adult education district. This does not enhance communication, cooperation and coordination, although this should be considered a "learning" experience in articulation efforts.

7. Project staff members should provide more comprehensive consultant services.

   Prime examples would be in providing consultative services in the area of competency based instruction, DACUM approach and task analysis. It would seem that given appropriate orientation, the project staff member should be able to provide a delivery system for these aforementioned approaches rather than to consume consultation funds.

8. The nineteen CESA's throughout the state should become more involved with articulation efforts.

   Even though a CESA may have participating schools attached to as many as five different VTAE districts, the CESA, none-the-less should be considered a viable resource in the process of communications, cooperation and communications.

It would seem that before a VTAE contact person "declares" that his district is not interested in participating in the state project, that the CESA coordinator should be advised accordingly.

9. There was tendency for a lack of preworkshop communication between project staff members and the VTAE district contact person. It is commendable to consider arranging a preworkshop planning meeting between the individuals playing the role of catalyst and workshop planners. This is time consuming because of the geography involved but workshop results are enhanced considerably by preplanning on a mutual and coordinative basis.
10. It might be considered in future projects to provide stipend payments to the school districts to alleviate an apparent hardship on the public school district in hiring a person to take the place of the workshop participant.
11. School visitations between educators from both institutional levels should be encouraged on a reciprocal basis.
12. Additional efforts should be made in developing an articulation delivery system using the DACUM (or modified) approach concurrently with competency identification and respective personalized instruction.
13. A statewide communications network should be established to foster statewide transportability of progress reports and accomplishments being accommodated on a statewide basis.
14. Districts should consider establishing VTAE district-wide advisory committees, specifically established to implement district-wide articulation efforts.
15. Additional financial support should be solicited for articulation efforts on a federal, state, and local basis (both L.E.A. and V.T.A.E.).

16. Articulation workshops should continue to be provided. However, the disciplines should be expanded to all vocational areas.

17. Funds should be made available for consultant assistance whenever project staff members are either not available or not qualified to provide the assistance requested.

18. Workshops should be only quasi-structured in order to allow flexibility in content and to foster inter-faculty communications.

19. Regularly scheduled coordination meetings between institutional level faculties should be accommodated.

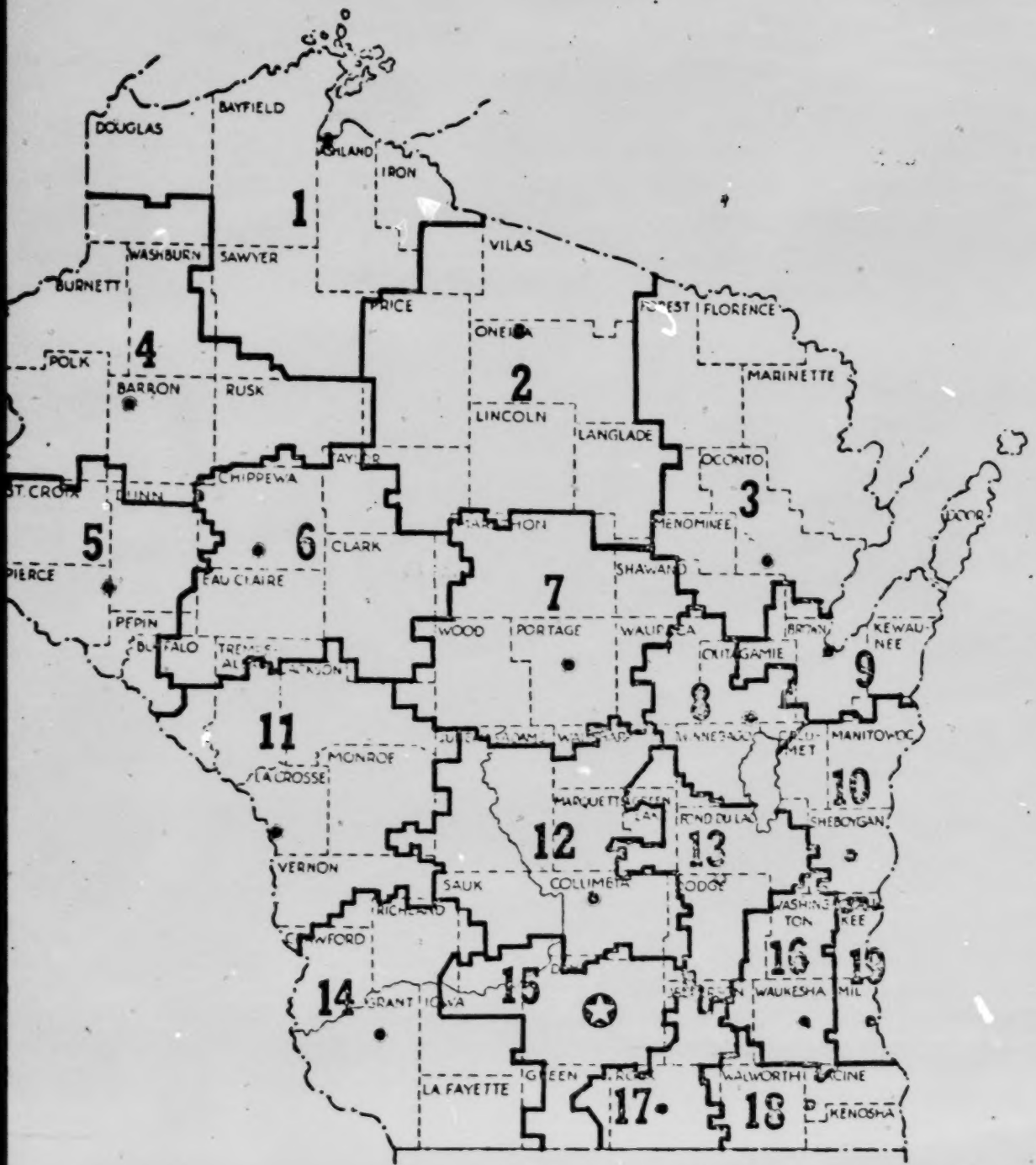
20. Articulation efforts being made at the state administrative level should be further "made known" to the faculties, staff, etc., on the local levels.

21. Impartial third party evaluation should be provided to evaluate progress on a district-wide basis.

22. Endorsement of the need for cooperative articulation efforts should be more strongly supported, and evidenced at the local level by top administrative staff and directors.

23. The State Director and State Superintendent should continue to provide top level endorsement of the necessity for cooperative articulation efforts. More emphasis should be placed on communicating this support to local instructional staff members both at the VTAE and LEA institutional levels.

6. Cooperative Educational Service Agencies (CESA)



State of Wisconsin

BOARD OF VOCATIONAL, TECHNICAL & ADULT EDUCATION

EUGENE LEHRMANN State Director

VIAE

VOCATIONAL, TECHNICAL & ADULT EDUCATION DISTRICTS

Approved for Operation July 1, 1973

List of Workshop Participants
Organized by VTAE District

District VTAE	Contact Person	Area(s) Selected	Schedule of Workshop(s)
VTAE District One	Orv Gabriel Bob Birchler Bill Boyle	Industrial Education Trade and Industry	Dec. 11, 1974 Jan. 3-7, 1975 March 9, 1975 May 5-9, 1975

Participant	School
Tom Twesme	Osseo-Fairchild High School
DeWayne Nevin	Cornell High School
Stuart Strong	New Auburn High School
Rick Maas	Bloomer High School
Dave Ryback	Augusta High School
Ray Post	Cadott High School
Clifford Abbate	Eleva-Strum High School
Rex Hoover	Lake Holcombe High School
Gerald Berseth	Fall Creek High School
Neal Blinkman	CESA #6
Steve Joas	CESA #6
John Streif	Altoona High School
Bill Harychi	Thorp High School
Mike Bruneau	Greenwood High School
Emil Remus	Granton High School
John Milbrath	River Falls High School
Jerry Slind	Colfax High School
Keith Kroma	Chippewa Falls High School
Clyde Schwellenbach	Durand High School
Walter Hansen	Spring Valley High School
Arlan Gunderson	Gilman High School
George Moore	Greenwood High School
Jerry Smith	Chippewa Falls High School
Bob Uhrig	CESA #5
Dick Quast	Neillsville High School
Kurt Bents	CESA #5
Bill Weiser	River Falls High School
Gus Bell	District One Technical Institute
Herb Carlson	District One Technical Institute
Jerry Contney	District One Technical Institute
Les Gilbertson	District One Technical Institute
Ray Loer	District One Technical Institute
Lew Mallow	District One Technical Institute
John Olson	District One Technical Institute
Chet Smuhl	District One Technical Institute
Lee Larson	District One Technical Institute
Art Schmidt	District One Technical Institute
Bob Jacobson	District One Technical Institute

Participant	School
Dick Hovland	District One Technical Institute
Walter Nechville	District One Technical Institute
Bob Birchler	District One Technical Institute
Dick Hogstad	District One Technical Institute
Orv Gabriel	District One Technical Institute
Ken Wolske	District One Technical Institute
Ron Hoepner	District One Technical Institute
Norbert Wurtzel	District One Technical Institute
Russ Mandy	UW-Stout
Jim Bensen	UW-Stout
Dick Gebhart	UW-Stout

Madison Area Tech. College	Alun Thomas	Business Ed.	March 12, 1975
		Trade & Ind.	March 19, 1975

Participant	School
Earl Mihlbauer	CESA #15
David Young	CESA #12
Gari Spagnoletti	CESA #12
Jim Whalen	Randolph High School
Edward Wilson	Sun Prairie High School
Jim Olstad	Oregon High School
Leonard Krapp, Sr.	Cambria
Brad Hubing	Stoughton High School
Farris Harrison	Verona High School
James Bucher	Johnson Creek High School
John Benson	Marshall High School
Marvin Berg	Waunakee High School
D. L. Amundson	Waunakee High School
John Zenor	Stoughton High School
Donald Walker	Stoughton High School
John F. Dybvik	Oregon High School
Wesley Edgar	Wisconsin Hts. High School
Wayne Kiefer	Marshall High School
Roger Hollis	Marshall High School
John Ardelt	MATC
Don Christianson	MATC
Lois Farnsworth	MATC
Belle Fiedler	MATC
Charles Haycock	MATC
Roland Johnson	MATC
Dean Kammer	MATC
James Luessman	MATC
Will Larson	Jefferson High School
Dan Scheid	MATC
Mel Seamans	MATC
LaVerne Sneath	River Valley High School

Participant	School
Alun Thomas	MATC
Dean Wessels	MATC
Paul Meister	MATC
Larry Meicher	MATC
Dick Virtue	MATC
Jim Miller	MATC
Michael Chopin	MATC
Don Wernick	MATC
William Munkwitz	MATC
Darlene Hancock	Memorial High School
Ronald Bart	Memorial High School
Wallace Bondhus	West High School
Jerome Schafer	MATC
Lee Schwartz	River Valley Schools
Robert Christen	Cambridge High Schools
Bill Tefft	Sun Prairie
John Martin	East High School
Philip L. Christensen	Belleville High School
A. Butch Passehl	Sauk Prairie
Paul Burrill	Rio High School
Jim Muehl	Verona High School
Bill Urban	Mt. Horeb High School
Don Reed	Fort Atkinson High School
Robert Bilkey	
Mabel Bloxham	
Kent R. Brigham	
Janice Christensen	
Ruth Churchill	
Fred Dibbert	
John Dimick	
Stephen Edelstein	
Katherine Harding	
Dean H. Kammer	
R. Mable Mierke	
Jane Niebauer	
Michael N. Opachich	
Catherine Pawelski	
Sharon Petersons	
John S. Robinson	
Kay Rock	
Virginia Rodefeld	
Helen Scoon	
Gary Sell	
Esther Severa	
James Sheffield	
Terence C. Sheldon	
Ralph Smieja	
Robert L. Sutton	
Philip L. Tarpley	
Charles Taylor	
Robert Thompson	
Thomas G. Thompson	
Henry Walski	
Arlisle Wolff	

Blackhawk VTAE	Harry Olsen Zollie Hall	Business, Distributive Ed., Home Economics, General Ed., Trade & Industry, Agriculture, Health	May 5, 1975 May 6, 1975

Participant	School
Duane Buss	Janesville Craig
Dalton D. Schoening	Janesville Craig
Mrs. Blance Baker	Janesville Craig
Mrs. Hodge	Janesville Craig
Marvin Hauser	Janesville Craig
Thomas Wisotzke	Janesville Craig
Ruth Zei	Janesville Parker
Georgia Christner	Janesville Parker
Diane Danielson	Janesville Parker
Gwen Daluge	Janesville Parker
Carol Hackbarth	Janesville Parker
Paul Will	Janesville Parker
Lloyd Edge	Clinton
Eugene H. Harsevoort	Clinton
Robert Scheets	Clinton
Art Kautza	Milton
A. Dean Cretney	Milton
Tom Kemppainen	Milton
Sharon Dux	Milton
Irene Ruszcayk	Milton
Lorraine Willet	Milton
Don Albright	Parkview
Alice Kranig	Parkview
Mrs. Knipschild	Parkview
Owen Lee	Parkview
Ron Brewster	Edgerton
James Schultz	Edgerton
Mary Van Hout	Edgerton
Irene Silverwood	Edgerton
Lenore Paulick	Edgerton
John B. Shier	Edgerton
Donald L. Mueller	Brodhead
Peter M. Rizzo	Brodhead
Barbara McBride	Brodhead
Coyla Baker	Brodhead
Carman Lark	Brodhead
Clem Stapleton	UW-Stout
Russ Mandy	UW-Stout
Deanna Allen	UW-Stout
Lucretia Grigsby	Beloit Turner
Mary Beringer	Beloit Turner
Mary Ann Hepperly	Beloit Turner
Richard Davies	Beloit Turner
Dorothy Hintz	Aldrich
Michael Schmidley	Aldrich
Pauline Lawson	Aldrich

Participant	School
William Henning	Aldrich
Doris Ohland	Aldrich
Louise Ahn	Aldrich
Sue Zimmerman	Albany
Jeanne Wondra	Albany
Ellen Nordin	Albany
Ronald Hartman	Beloit Memorial
Willis Pollock	Beloit Memorial
Mary Jones	Beloit Memorial
Dr. Eugine Tornow	Beloit Memorial
William Decker	Beloit Memorial
Dorothy Baer	Beloit Memorial
Lavonne Keitch	Beloit Memorial
Mrs. Schoenfield	Beloit Memorial
Mr. Wehrle	Beloit Memorial
Larry Sampson	Monroe
Katherine Siedschlag	Monroe
Eveyln Haas	Monroe
Mr. Sathoff	Monroe
Mr. Reese	Monroe
Kent Duit	Monroe
J. Peter Shaw	Evansville
Leota Taylor	Evansville
Michael Wiziarde	Evansville
LaVerne Hoffman	Evansville
Annette Steinbach	Evansville
Jeanette Walker	Evansville
Ed Kowieski	Darien
Vicki Weiss	Juda
Fred Holt	Administrative Center
Geneva Johnson	Administrative Center
Don Upson	CESA #17
Clifford Zenor	State Office
James Urness	State Office
Donald Zahn	Department of Public Instruction
Elaine Staaland	Department of Public Instruction
John Hull	Blackhawk Tech.
Jack Martin	Blackhawk Tech.
Bill Landvogt	Blackhawk Tech.
Spence Howard	Blackhawk Tech.
Connie Vuchetich	Blackhawk Tech.
Ivan Eckholm	Blackhawk Tech.
Pam Ensley	Blackhawk Tech.
Phyllis Johanning	Blackhawk Tech.
Gladys Olson	Blackhawk Tech.
Dorie Alff	Blackhawk Tech.
Pat Reboussin	Blackhawk Tech.
Zollie Hall	Blackhawk Tech.
James Fremont	Beloit Turner
Thomas Skorpinski	Beloit Turner
Michael Sklavos	Beloit Turner
Paul Hertel	Beloit Memorial
George Christiansen	Beloit Memorial

Participants	School
Gregory Tonka	Janesville Craig
Marvin Blezer	Janesville Craig
Bob Johnson	Janesville Craig
Carol Ann Johnson	Janesville Craig
Richard Miller	Janesville Craig
William McBay	Janesville Craig
Hugh Horswill	Janesville Parker
Richard Klippstein	Janesville Parker
Bernard Staller	Janesville Parker
Basil Hartman	Janesville Parker
Richard Heshleman	Janesville Parker
John Schwalbe	Janesville Parker
Bruce Gunderson	Brodhead
Mike McGoff	Brodhead
Larry Udelhoven	Brodhead
Robert Keen	Brodhead
Richard Schwarts	Evansville
Ray Weigand	Evansville
Gary Hoff	Evansville
Ken Sedbrook	Monroe
David Rock	Monroe
Mr. Schweizer	Monroe
Kenneth Allen	Monroe
John Emmons	Monroe
Jim Bartholf	Monroe
Will Klippel	Monroe
Mr. Knefelkamp	Parkview
Tom Lorenzen	Parkview
Milt Bakken	Milton
Leo Delo	Milton
Tom Bartz	Milton
Jim Polarski	Milton
Ralph Irvin	Aldrich
Gerald Heying	Aldrich
Rex Thomson	Aldrich
Ben Campa	Monticello
Len Cisewski	Monticello
Robert Voss	Monticello
Dallas Briggs	Clinton
Lloyd Edge	Clinton
Robert Jaecklin	Clinton
Gene Taylor	Clinton
Don Jones	Clinton
Leland Rust	Clinton
Dave Lundin	Edgerton
Joseph Peplinski	Edgerton
Jerry Gruman	Edgerton
Kathleen Gardner	Albany
James Kuntz	Albany
John VanDerHoaf	Albany
Wayne Martin	Juda
Dr. John Zie	Administrative Center
Ralph Mitby	Administrative Center

Participant	School
Camilla Schloemer	State Office
Joseph Polansky	State Office
Robert Johnson	State Office
Allen Linster	State Office
Larry Allwardt	State Office
Richard Kitzman	Department of Public Instruction
Carol Brunsell	Blackhawk Tech.
Richard Oster	Blackhawk Tech.
Len Edge	Blackhawk Tech.
O. L. Johnson	Blackhawk Tech.
Harry Olsen	Blackhawk Tech.
Phillip Waller	Blackhawk Tech.
Nancy Flood	Blackhawk Tech.
J. William Cook	Blackhawk Tech.
Wes Kobal	Blackhawk Tech.
Gene Hilst	Blackhawk Tech.

Gateway VTAE	Ken Mills	Distributive Ed.	Oct. 15, 1974 Feb. 4, 1975
	Harold Sahakian	Business Ed.	May 29, 1975 May 30, 1975

Participants

Kenneth Mills
Milt Hillery
Carol Murphy
Lloyd Larson
Hubert Braun
Rosemarie Zell
Marilyn Eck
Diane Hefty
Patricia Cease
Mary Hoffmeister
Clem Stapleton
Gene Flug
H. Sahakian
R. Cornell
J. Gronlund
P. Kroeger
T. Paul
D. Peyer
A. Pitts
A. Stuyvesant
Ed. Kowieski
S. Heilman
M. Giever

Waukesha Co. Tech. Institute	Jim Catania Gene Cook	Business Occupations Trade & Industry	Jan. 24, 1975 Jan. 30, 1975 Feb. 20, 1975 Mar. 19, 1975 Apr. 9, 1975 May 7, 1975 May 15, 1975

Participant	School
T. H. Leschensky	Oconomowoc High School
Gerard Varick	Muskego High School
James Tegtmeyer	WCTI
Sharon Arndt	Eisenhower High School
Clem Stapleton	UW-Stout
Deena Allen	U of Minnesota
Dale V. Cuculi	Menomonee Falls High School
Richard Logan	WCTI
Vicky Burger	Oconomowoc High School
Sharon Weber	Brookfield Central High School
Wilbert Herrmann	Mukwonago High School
Robert Hannold	Oconomowoc High School
Diana Gonzalez	WCTI
William Beecher	WCTI
Len Thorstad	WCTI
Alice Knurr	Mukwonago High School
Greg Gowdy	Mukwonago High School
Glenn Johnson	Mukwonago High School
Dick Johnson	Waukesha High School
Ralph Kinndy	Waukesha High School
Carol Apuli	Muskego High School
Mary Ann Dawson	Waukesha High School
Jim Eigenfeld	WCTI
Terry Largent	Oconomowoc High School
Leila Petterson	Waukesha West High School
Pat Ryan	Waukesha High School South
Jack Bold	Arrowhead High School
David Ellingson	Kettle Moraine
Glenn Wood	New Berlin
Jim Willoughby	Hamilton
Malik Mohammed	WCTI

Milwaukee Area Tech. College	Don McGibbon Bernard Greeson	All Divisions	Oct. 25, 1974 Nov. 15, 1974 Mar. 4, 1975 Apr. 14, 1975 May 19, 1975

Participants

Vincent O'Connor
Eldon Broman

Participant

Phyllis Heath
W. Earl Harmon
Edward Race
Lester Wittig
Greg McElwee
John R. Ricci
Ervin Yanke
Robert L. Johnson
Gordon R. Fairbert
Harry Thompto
Morris McFarlane
Jerry Enloe
James Burt
Al Block
Fred Casper
Earl Hill
Ray Heard
John Hedstrom
Claude Rogan
Neil Weinbrenner
Fred Klaisner
Stanley Kordus
Robert Thompto
Myron Anderson
O. Kent Anderson
Calvin McIntyre
Harold Zirbel
Teretha Harper
james Morgan
Roger Scheldroup
Peter Hassemer
Roger Ruether
Dr. Leonard Szudy
Sister Claudette
Karl W. Wedel
Donald McGibbon
Bernard Greeson
Marilyn Berman
Dr. William Ramsey
Edwin J. Taibl
Richard Geske
Arne Engebretsen
Lyle Davies
Robert Davies
Pauline Kasper
Joseph Katalinich
Frank Lee
Olive Luebke
Dean Russell
Andrew Stenson
Raymond Petitpren
S. Gleisner

Jerry Scheel
Henry Ross
John Traber
Rex Peterson
James Stoskal
William Stech
Gerald Jarowski
Steven Kittleson
Russell Mandy
Dr. Thomas McLeRoy
Arthur Carlson
Milton Boldt
Mary Vick
Helen Russel
James Schlagenhaft
Donald Schwarz
Stanley Badzinski
Matt Fredrich
Gene Bochek
Harold Bessette
Ginny Chybowski
Dwayne Partain
Marie Fraser
Margaret Lutovsky
Hannah Diamond
Richard Borowski
Mary Byrne
Kenneth Lean
J. Gradian
Geraldine Jaworski
Harry Foster
Harry E. Pokorny
Donna Batker
Geraldine Reszel
Christine R. Voll
James Opelt
Joesph Baer
Donald Chartraw
Eugene Maurer
Ralph Onarheim
Anthony Karpowitz
Sister M. Crucifix
John Traber
Walter Mountin
Jack Marcussen
Jerry Benka
Avril Farris
Jeff Zore
Pat Hansen
Gabe Bechers
Marth Sather
R. Burdick

Participant
Virg Driscol
Karen Olson
Bunny Mihm
Bruce Precourt
Lane Backur
Gerald Homan
Juno Petzold
Thomas Jacklund
Charlotte Saleska
Robert Kesslur
Fay Topetzes
M. Tokheim
T. William
P. Peters
R. Jobst
S. Mehail
Dorothy Lutovsky
M. Polski
T. Printz
V. Schmidt
George Elliot
P. Jelich
James Surges

Moraine Park VTAE	Phil Stoll	Welding	Jan. 30, 1975
		Machine Tool	Mar. 6, 1975
		Metal Fabrication	Apr. 10, 1975

Participant	School
Frederick Casper	Ozaukee High School, Fredonia
Jim Burt	Cedarburg High School
Paul Stangel	Cedarburg High School
John Phillips	Mayville High School
Karl Edman	Campbellsport High School
Thomas Michaels	MPTI-West Bend
Bill Kuehn	Markesan High School
Donald Laine	MPTI-West Bend
Jim Bucher	Horicon High School
Don Bamberger	Ozaukee High School
Herb Nitschke	Beaver Dam
Lyle Degner	Dodgeland High School, Juneau
Mel Gunnink	Markesan High School
James Neumeier	Berlin High School
Ron Nelson	Fond du Lac
Roger Prickette	Watertown High School
Roger Gibbons	MPTI
Roy Esser	Kewaskum High School
Micheal Coulter	MPTI
David Wolslegel	CESA #13
Mike Stella	North Fond du Lac High School

Participant	School
Dennis Klamm	Beaver Dam High School
Clark A. Buchanan	Markesan High School
Gerald Oehmen	Horicon High School
Carol Miller	West Bend High School
Robert Meier	MPTI-Beaver Dam
Steve Kittleson	Grafton High School
Kent Thomas	Mayville High School
Jerry La Fleur	Campbellsport High School
Otto B. Klaus	Grafton High School
Howard Zemlickson	Kewaskum High School
Kenneth Nelson	West Bend-MPTI
Keith D. Drazkowski	MPTI-Fond du Lac
Ed Krause	Beaver Dam Senior High
Craig Gentzle	Washington High School, Germantown
Phil Stoll	MPTI
Ted Sehmer	Beaver Dam
John Schrum	Fond du Lac High School
Earl Hill	Washington High School, Germantown
Gary Burkhalter	Hustisford High School
Ken Ochulla	Hustisford High School
Arlyn Hollander	Markesan High School
Ken Huddleston	North Fond du Lac High School
Jim Boeder	Watertown High School
Glenn Schwoch	Watertown High School
Robert Sorensen	MPTI
Glenn Demoske	MPTI
Robert Thaldorf	MPTI
Edward Schmidt	Grafton High School

Fox Valley VTAE	Nancy Wittrock Stan Spanbauer	All Divisions	Jan. 30, 1975 Mar. 17, 1975 Mar. 24, 1975 Apr. 23, 1975 May 14, 1975

Participant	School
Clyde Schmidt	Xavier High School
Armin Gerhardt	LVEC
Owen Reppert	Appleton High School East
Ron Odegaard	Appleton High School East
Donald Gee	Appleton High School East
Robert Hanson	Appleton High School West
Fred W. Reseburg	Appleton High School West
Charles Howell	Appleton High School West
Glenn Mott	Brillion High School
Tom Hogan	CESA #8
Bill McCarthy	MLVP, CESA #8

Participant	School
Phillip L. Gocker	CESA #8
R. Danielson	Clintonville Senior High School
Gary Wendorff	Clintonville Senior High School
R. Abets	Freedom High School
Bill Lautta	Freedom High School
Ray Schlais	Freedom High School
J. R. Schwaller	Freedom High School
Dean Ehlers	Hilbert High School
George Gusick	Hilbert High School
Dr. R. C. Cross	Hilbert High School
Robert Genisot	Hilbert High School
Richard Dawson	Kimberly High School
Jerry Vanevenhoven	Little Chute High School
Lyle Nelson	Little Chute High School
Bob Schottmuller	Little Chute High School
Keith Myers	Little Wolf High School
Ron Smies	Little Wolf High School
Jan Trieweilier	Little Wolf High School
Roger G. Dubble	Marion High School
Chuck Bruemmer	Menasha High School
Gary Farrell	Menasha High School
Dave Springhetti	Menasha High School
Herb Mehne	New London High School
Ken Renning	New London High School
Gerry Bohm	New London High School
Gary Henke	New London High School
Darrell Jansen	Omro High School
Robert Harma	Omro High School
James Herman	Omro High School
T. Zaborski	Oshkosh West High School
M. Koslowski	Oshkosh West High School
R. Endreson	Shiocton High School
Paul Gillings	Waupaca High School
Steve Bordini	Waupaca High School
John Morgan	Waupaca High School
Neil Kohn	Wautoma High School
Hugh Strawn	Wautoma High School
Hank Weiss	Wautoma High School
Ron Unertl	Weyauwega High School
Frank Zabow	Weyauwega High School
Don Treptow	Wrightstown High School
Robert Von Haden	Wrightstown High School
Ron Kuen	Fox Valley Technical Institute
Mr. Bordini	Fox Valley Technical Institute
Mr. Spanbauer	Fox Valley Technical Institute
Emil Leppiaho	Fox Valley Technical Institute
Ted Begeman	Fox Valley Technical Institute
Joe Giovanoni	Fox Valley Technical Institute
Dick Butkiewicz	Fox Valley Technical Institute
John Pratsch	Fox Valley Technical Institute
Joe Benkowski	Fox Valley Technical Institute

Participant	School
Phil Myrkle	Fox Valley Technical Institute
Virgil Noordyk	Fox Valley Technical Institute
Dean Rusch	Fox Valley Technical Institute
Hank Roesler	Fox Valley Technical Institute
Chet Jensen	Fox Valley Technical Institute
Lloyd Hoeffner	Fox Valley Technical Institute
Bob Damon	Fox Valley Technical Institute
William Baggs	Shiocton High School
Mrs. Gert Behnke	Brillion High School
Virginia Butler	Hortonville High School
Louis Cihak	Shiocton High School
Patricia Dexter	Armstrong High School, Neenah
Richard Eineichner	Brillion High School
Jean Facklam	Little Wolf High School
Dona Geeding	Menasha High School
Jonathan Harley	Little Wolf High School
Roger Haytink	Winneconne High School
Susan Hepler	Brillion High School
Fran Hinterthuer	St. Mary's Central High School
Kathy Kiger	Hortonville High School
Don Kilgas	Kaukauna High School
Peg Kirchner	Little Chute High School
Mary Kolbe	New London Senior High School
Dorothy Koller	Appleton Public School
Patricia Kools	Armstrong High School
Ron Kovacic	Hilbert Public School
James Krueger	Winneconne High School
Rosemarie Lauer	Hilbert Public School
Donald Lillie	Omro High School
Dennis Lord	Little Wolf High School
Sue Luedtke	Hortonville High School
Ron Margolofsky	Kaukauna High School
Ruth Miler	Omro High School
Lila Nelson	St. Mary's Central High School
Jim Nuthals	Lourdes High School
Dolores O'Connell	Little Chute High School
Nancy Ott	Brillion High School
Harlan Pirlot	Appleton Public School
Bill Repulski	Kimberly High School
Richard Riddle	New London Senior High School
John Stock	Kaukauna High School
Doris Strehlow	Omro High School
Keith Swett	Seymour High School
Ms. Honor Testin	Little Wolf High School
Sharon Thiel	Kimberly High School
Mary Ungs	Lourdes High School
Jane Vondrncek	Kaukauna High School
Hubert Wetak	Appleton Public School
Lil Williamson	Little Chute High School
Robert Witczak	New London Senior High School

Participant	School
Nina Jo Derr	Appleton High School East
Ellen Goolsbey	Appleton High School East
Stan Ore	Appleton High School East
Joanne Meier	Appleton High School West
Emmett H. Hoks	Appleton High School West
Marilyn Spieth	Appleton High School West
Mrs. Vanjae Engstrom	Armstrong High School
Tom Whalley	Big North Vocational Center
Pat Rychter	Big North Vocational Center
Diane Weekly	Big North Vocational Center
Sharon Brooker	Appleton High School West
William McCarthy	CESA #8
Phillip L. Gocker	LVEC, CESA #8
Helen Dean	Clintonville High School
Jane Feuerstein	Hilbert High School
Mary Moore	Hortonville High School
Betty Nigl	Kaukauna High School
Marion Leisering	Kaukauna High School
Shirley Bournoville	Kimberly Senior High School
Marge Conkey	Kimberly Senior High School
Warren F. Jarvis	Kimberly Senior High School
Christine Muir	Little Chute High School
Pam Stromer	Little Chute High School
Helen Wells	Little Chute High School
Donna Heldt	Menasha Sr. High School
Vicki Banasik	New London High School
Herb Mehne	New London High School
Louise Heidel	Omro High School
Linda LeJeune	Omro High School
James Sheridan	Omro High School
Diana Gundrum	Oshkosh North High School
Tom Robb	Marc's Big Boy
Mary Hafeman	Former Co-op Student
Lee Weigert	Oshkosh West High School
Byron Malsin	Oshkosh West High School
Dennis Vetter	Oshkosh West High School
Susie Kruzicki	Shiocton High School
Norbert Kalinoshy	Shiocton High School
Don R. Nass	Xavier High School
Virginia Carew	Xavier High School

Northeast Wisconsin VTAE	Thor Magnuson	Welding, Business, Math, Auto Mechanics, Mach. Shop, Drafting, Home Ec.	Jan. 15, 1975
	Pat Humphreys		Mar. 10, 1975
			Mar. 19, 1975

Participant	School
Paul Bertrand	Marinette
Ann Christophersen	Marinette
Dee Daveson	Marinette

Participant	School
Clifford Hansen	Marinette
David Reise	Marinette, NWTI
Paul Phillips	Suring
Gerald Wescher	Niagara
George Calvert	Oconto
Bruce Bartanen	Oconto
Malcolm Schreiner	Marinette, NWTI
James F. Rutten	Coleman
Charles Raymond	Coleman
Deborah Westphal	Oconto
Joan Abel	Oconto Falls
Rosemary Korbel	Oconto Falls
Lester Korbel	Oconto Falls
Michael Van Mun	Marinette, NWTI
Thomas J. Weltz	Coleman
Claude Klempke	Oconto Falls
Lloyd Harmon	Marinette
Robert Schmell	Southwest High
Robert J. Gannon	CESA #3
Thor Magnuson	NWTI-Marinette
Jim Curran	Southwest High School
Ora Showers	Preble High School
Anne Drapp	Preble High School
Marlyn Gilbert	Southwest
Gordon M. Carlson	West High
Ben Roloff	Bay Port
Edmund VandenBush	Denmark High
Raymond Schauer	Denmark High
John Cook	NWTI
W. C. Mitchell	Preble High School
J. R. Schneider	Kewaunee High School
Jean Parman	CESA #9
Anita Hartman	Bonduel High
R. E. Showers	East High- G. B.
Pauline J. Harkee	Bonduel High
Lee Floriano	NWTI
W. F. Gierl	Southwest High
Wm. R. Jones	West High- G. B.
Fred Dand	Shawano
Fred Beyer	Shawano
Mark Megna	Shawano
Dennis E. Manly	CESA #9
William Hukler	Shawano
Mary Irish	Shawano
Helen Forsythe	Shawano
John L. Jacklin	De Pere
Darryl Polzin	Preble High
Karen Rackow	Algoma
Roger Schwenberger	Algoma
Lawrence Schmitz	Algoma
Jim Janssen	De Pere
Jack Marchant	De Pere

Participant	School
Kathy Huppert	De Pere
David Kopydlowski	De Pere
Jim Brusoe	Green Bay
Wm. McIntyre	Green Bay
Shirley King	Ashwaubenon
Ken Purdie	Ashwaubenon
Gene Brey	Green Bay - East
Don Erickson	Southwest High
Lorna Hotz	East High-G. B.
Jack Crowley	CESA #9
Darlene Axtell	Preble High
Donald Henderson	NWTI-Sturgeon Bay
Geroge Doncheck	Kewaunee High
Wm. Evans	NWTI
Leonard A. Zittlow	Soutern Door
Nancy Schopf	Bay Port
David S. Shalkhauser	Southern Door
A. L. Hepp	Algoma
Neil Olsen	NWTI
Carol Suring	NWTI
Jerry McCartney	Ashwaubenon H. S.
John Van Delen	Kewaunee H. S.
Douglas Rowling	NWTI
Pat Stoege	Luxemburg-Casco H. S.
Jim Marcks	Luxemburg-Casco H. S.
Doug Giannunzio	Pulaski
Michael A. Neuman	Green Bay West
Joe Korpal	Preble
Lloyd Simon	NWTI
Roger W. Schauf	NWTI
John Piron	CESA #9
W. Tiede	NWTI
Roger Senft	NWTI
John Nesbitt	NWTI
David Voskuil	NWTI
W. Hammill	NWTI
R. Gerstner	NWTI
R. Molaski	NWTI
Leon Malfroid	NWTI
Fred Ponschak	Shawano High School
Ken Stoey	East High-Green Bay
G. O. Westlund	NWTI
J. Steffen	NWTI
Ken Schulz	NWTI
Dale Bartel	NWTI
John Brehm	NWTI
George Leuthner	NWTI
Ray LeBrun	NWTI
Don Baus	NWTI
Dave Olejniczak	NWTI
Clayton Lemerond	NWTI
Wayne Elinger	NWTI
Judy Kraft	NWTI
Bruce Koopika	NWTI

Participant	School
Terry Craney	NWTI
Ed Kuehn	NWTI
Jim Emmel	NWTI
Vic Zinda	NWTI
Clete Delvaux	NWTI
Jim Robbins	NWTI
John Presslein	NWTI
Cliff Anderson	NWTI
David Johnson	NWTI
Karl Radosevich	NWTI
Earl Walker	NWTI
Al Matuszak	NWTI
Gene Wetak	NWTI-Sturgeon Bay
Tom Pfister	NWTI
R. A. Bilot	NWTI
John Pogorelc	NWTI
S. A. Winnes	NWTI
Margaret Gessert	NWTI
V. Houge	NWTI
J. Kaufman	NWTI
Fred Janusek	NWTI
John Gaie	NWTI
M. Potter	NWTI
Eileen Spielbauer	Ashwaubenon High
James Robbins	NWTI
Liz Whalen	NWTI
Gerald Ploen	NWTI
J. Brenner	NWTI
Tim Hollihan	NWTI
H. A. Wallace	NWTI
Paul Zenefski	Southern Door
R. Tibbits	NWTI
Wm. Barlament	NWTI
P. J. Bunjovac	NWTI
Don Geyer	NWTI
Orland Obel	Bonduel
Bob Budz	NWTI
Liz Whale	NWTI
Bob Dodge	NWTI
Dave Wouters	NWTI
Mike Corcoran	NWTI
David Sekhon	NWTI-Sturgeon Bay
Dick Olson	NWTI-Marinette
Henry Wallace	NWTI-Green Bay

Mid-State VTAE	Bill Van Ornum	Business Occupations	May 7, 1975
North Central VTAE	Lois Gilliland Russ Paulson Chuck Christianson	Business Occupations	May 7, 1975

Participant	School
Robert Barr	Marathon
Joyce Batchelder	Merrill
Lillian Bohen	Marathon
Marie Braatz	Colby
Sheila Bucheger	St. Point
Ramert Carlson	Schofield
Michelle Danen	Medford
Joyce Haavisto	Colby
Gerald Hoover	Kronenwetter
Maxine Hug	Loyal
T. O. Jackson	Wittenberg
Judy Kalepp	Auburndale
Rose Marie Lefebrre	Medford
Larry Munzke	St. Point
Greg Paurus	Merrill
Jeff Olson	Hamburg
Anne Rehm	Athens
Andrew Ruzeck	Abbotsford
Marian Schwartz	Wausau
Don Simek	Merrill
Robert Sogn	Schofield
Thomas Stanek	Wittenberg
Mary Ann Vahovius	Wausau
Dorothy Kamholz	Wausau East High School
Garry Christie	NCTI
Betty Dickerson	NCTI
Larry Dike	Wausau East High School
Bob Fredericksen	NCTI
Gerry Hoover	NCTI
Lorie Johson	Wausau East High School
Marge Larsen	NCTI
Stan Meyers	Wausau East High School
Barb Nett	Wausau East High School
Ron Sem	NCTI
Joe Zahringer	NCTI
Don Zandi	NCTI

Nicolet VTAE	Dr. Richard Brown	Trade & Industry	Apr. 10, 1975
		Business Education	May 6, 1975
	Dave Christoffersen	English	May 7, 1975
			May 8, 1975

Participant	School
George Klingelhoets	Prentice High School
Gene Battist	NCTI
Ray Szymanski	UW-Stout
Roy Hull	Merrill High School
Dan Lorenzetti	Northland Pines High School-Eagle River
Harlan Adams	Merrill Senior High
Roland C. Beiswanger	Elcho High School
Fred Bittorf	Elcho High School
Clem Stapleton	UW-Stout
Grant Cummings	Nicolet College
Jim Oravecz	Nicolet College
Sandra Sarinske	Nicolet College
Bob Germer	Nicolet College
Al Nelson	Nicolet College
Glenn Sansburn	Nicolet College
Bill Morgan	Nicolet College
Garth E. Wilcox	Tomahawk High School
Bob Sargent	Nicolet College
Ed Opper	Nicolet College
Ernest Junker	Tomahawk High School

Wis.	Indianhead VTAE	Art Cothran	Business & Dist. Ed. Feb. 14, 1975 Small Engines Mar. 20, 1975 Auto Body Apr. 2, 1975 Auto Mechanics May 9-10, 1975

Participant	School
Art Cothran	WITI
Dann R. Kann	WITI
Thomas Macki	Spooner City Schools
Dan Morris	Barron Area Schools
Patrick Becker	Rice Lake High School
Gerald Jacobson	Frederic High School
Howard Hunt	CESA #4
Richard D. Ayers	CESA #4
Robert Dewey	Chetek
Walter Bucki	CESA #4
John Donica	WITI
David Skinner	WITI
David King	Luck
Daniel Richter	WITI
Ted W. Watkins	WITI
Robert Carlson	Clayton
Clem Stapleton	UW-Stout
Gene Flug	UW-Stout

Multi-District Secondary School Intensified Workshop	Distributive Ed.	Feb. 24-26, 1975 Apr. 25-26, 1975

Participant	School
H. Sahakian	Gateway VTAE District
E. Kowieski	Delavan High School
T. Taylor	Racine Park High School
R. Huber	Waukesha Co. Tech. Institute
J. Jurkowski	Delavan High School
T. Largent	Oconomowoc High School
W. Landvogt	Blackhawk Tech. District
L. Sampson	Monroe High School
G. Farrell	Janesville High School
E. Johnson	District One VTAE District
F. Boller	Eau Calire North High School
T. Chinowski	Chippewa Falls High School
W. Chojnowski	WBVTAE
W. Harrison	DPI

Ad Hoc Advisory Committee for Articulation
of Secondary and Post-Secondary
Vocational Education

NAME	ADDRESS
Duffy, Richard (608/822-3262)	Ass't Director, Inst. Services Southwest Technical Institute, Fennimore 538
Goodman, Dr. David (414/472-1322)	Chairman, Business, Office & Distributi Ed., UW-Whitewater, Whitewater, 53190
Halfin, Dr. Harold	
Heath, Ms. Phyllis (414/475-8056)	Consultant, Business & Office Central Administration Offices, CESA 19, Milwaukee Public Schools, 5225 W. Vliet St., Milwaukee, 55225
Huddleston, Dr. Kenneth (414/324-4461)	CESA 13, 908 West Main St., Waupun 5936
Jones, Dr. Agnes (715/346-2830)	Dean Home Economics, UW-Stevens Point, Stevens Point, WI 54481
Krogstad, Roland (608/266-3705)	Research Consultant, WBVTAE, Hill Farms State Office Bldg. (7th Floor), 4802 Sheboygan Ave., Madison, 53702
LaBarre, Dr. James (715/836-3416)	UW-Eau Claire, Eau Claire, 53701
Martinson, Virgil (608/266-2207)	Consultant, Agriculture Education, DPI, 126 Langdon St., Madison, 53702
May, Mr. Al (235-9045)	Ass't to the Superintendent, Menomonie Public Schools, 718 N. Brdwy, Menomonie
Nelson, Dr. Orville	
Neverdahl, Bill (715/836-3997)	Ass't Director, Field Services, VTAE District 1, 620 West Clairemont Ave., Eau Claire, 54701
Pellegrin, Dr. Joseph (414/235-7100)	Superintendent, Oshkosh Public Schools, 215 South Eagle, Oshkosh, WI 54901

Petrich, Beatrice	School of Family Resources and Consumer Science, UW-Madison, 1570 Lindon Dr., Madison, 53701
Scheve, Ms. Helen (715/266-1700)	Home Economics Consultant, WBVTAE, Hill Farms State Office Bldg, (7th Flo 4802 Sheboygan Ave., Madison 53702
Swenson, Vernon (715/266-1286)	Chief, Office & Distributive Ed, WBVTA Hill Farms State Office Bldg., (7th Flo 4802 Sheybogan Ave., Madison, 53702
Speicht, Paul (608/266-2799)	Administrative Ass't, Bureau of Career Planning and Manpower Development, DPI, 126 Langdon St., Madison, 53702
Thompson, Marvin	UW-River Falls, College of Agriculture, River Falls, 54022
Weiser, Jerry (608/788-6500)	Principal, Central High School, 432 Cass St., Central High School, LaCrosse, 54601
Zahn, Donald (608/266-2348)	Consultant, Business & Office Educatio DPI, 126 Langdon St., Madison, 53702
Zenor, Clifford (715/266-3316)	WBVTAE, Hill Farms State Office Bldg., (7th Floor), 4802 Sheboygan Ave., Madison, 53702

AGENDA

Meeting of Ad Hoc Advisory Committee
For Articulation of Secondary and Post-Secondary Vocational Education
9:30, September 12, 1974 in the Board Room - WBVTAE

9:30 - 10:00	Introductions - Each committee member personally reviews the proposals
10:00 - 10:30	Review of literature on articulation
10:30 - 11:45	Discuss proposal, activities and time schedule
11:45 - 1:00	Lunch
1:00 - 1:30	Methodology of selecting areas to be articulated. Person to contact in each District
1:30 - 2:00	Regional Sessions - recommendation for developing the three seminars
2:00 - 2:30	Summarize, synthesize and adjourn

Ad Hoc Advisory Committee for Articulation
of Secondary and Post-Secondary
Vocational Education

Minutes #1

The first Ad Hoc Advisory Committee meeting was held on September 12, 1974 at the Board Office of the Wisconsin Board of Vocational, Technical and Adult Education, Madison, Wisconsin. The following members were present:

NAME	INSTITUTION
Helen Scheve	WBVTAE
Agnes Jones	UW-Stevens Point
Phyllis Heath	Milwaukee Public Schools
Vernon Swenson	WBVTAE
Ken Huddleston	CESA #13 Waupun
Dick Duffy	Southwest Technical Institute
Jerry E. Weiser	La Crosse Central High School
Jim LaBarre	UW-Eau Claire
Marvin Thompson	UW-River Falls
Virgil O. Martinson	DPI-Madison
Paul L. Speicht	DPI-Madison
Beatrice Petrich	CAVE, UW-Madison
David G. Goodman	UW-Whitewater
Bill Neverdahl	VTAE-District 1
Allan May	Menomonie Public Schools
Joe Pellegrin	Oshkosh Public Schools
Roland Krogstad	WBVTAE
Orville Nelson	UW-Stout
Harold Halfin	UW-Stout

Mr. Roland Krogstad, Consultant WBVTAE, welcomed the group for the Wisconsin Board of VTAE staff and provided background relative to funding the project. The $50,000 grant was provided through the Education Profession Development Act - Section 553.

The Oregon way, "Cluster Guide Approach" was briefly presented. The state of Oregon utilizes cluster guides for secondary and post-secondary education in an attempt to bring about articulation. The guides are jointly developed by secondary and post-secondary teachers. Task analysis of a cluster of jobs provides the basis for the cluster guides.

Student Articulation Between Secondary and Post-Secondary Education - A Suggested Guide was discussed. Articulation problems and issues in addition to implementation procedures were discussed. A copy of the guide is enclosed.

To bring about articulation, there needs to be communication, coordination and cooperation at all levels. Governor Lucey has mandated it and Mr. Lehrmann and Dr. Thompson have developed a joint agreement which was presented to the committee. There are isolated cases around the state where articulation is taking place; however, there does not appear to be a concerted effort to totally articulate in any one district.

The question was asked if articulation should be limited to curriculum or does it include sharing of staff, program, facilities, etc? The committee decided that articulation of the curriculum should be the primary focus of this project. By articulating the curriculum possibly the sharing of facilities and staff may come about. It was also pointed out that it is possible to become too articulate. There is more agreement as to what is to be taught, than where it should be taught.

The objectives of the project were discussed individually. A question was raised relative to articulating general education subjects, the 3R's, etc. It was decided by the committee that if a district wished to articulate general education subjects the opportunity would be afforded them through the project. It was also decided that the project would limit articulation to one or two areas in each VTAE district. Hopefully the areas selected in each of the 16 VTAE districts would not have too much overlap.

The primary purpose of the project is to develop a model or models of articulation in the state. A status study will be done to determine how much articulation is taking place and the model being used. In addition, the project will attempt to promote further articulation. The scope of the project is limited to secondary and post-secondary VTAE institutions. However, the commitee recommended that the universities get involved also.

Relative to the Activities and Time Schedule for the project, it was felt that District Directors need to be involved rather than his assistants. Also CESA Coordinators (Section 2.A.2) should be involved. The superintendents must be included also if there is to be a total commitment to articulation. The chain of command must be followed. It was recommended that the State Superintendent and State Director VTAE offically back the attendance to the workshops. It was suggested that local advisory committees be involved where possible.

The committee decided that it was necessary to get commitment from local superintendents, CESA directors and VTAE district directors before proceeding. Get the commitment first then decide on the areas to be articulated, where the workshops will be held and the procedures to be followed in each district.

To get the commitment of the local superintendents, it was decided that the project director should try to get on the agenda of the regional meetings of the superintendents through Mr. Reinie Bents of WASDA. The district directors would be invited to attend the regional meetings by Mr. Lehrmann. The state superintendent would make contact with those superintendents who did not attend the regional meetings. (Mr. Bents was

contacted later and the Executive Board of WASDA decided that the project director should get commitment for the project at the next monthly meeting of the CESA. Mr. Lehrmann will write each District Director to have a representative at that meeting. This is in the process of being accomplished.)

It was pointed out superintendents will be passive to positive toward the project. This will depend upon budget limitations and interest. We should attempt to pick the superintendents who have the positive attitude.

Each district will be permitted to articulate areas of its own choice, be it general or vocational education course curriculum. This remains the focus of articulation; however, the committee did not recommend the approach to follow which might bring about articulation. We should look at all possible ways of articulating.

Having concluded the business for the day, the committee decided that the next meeting should be in the latter part of January, January 27th-30th. Thursdays are good days to meet.

AGENDA

Meeting of Ad Hoc Advisory Committee For Articulation
of Secondary & Post-Secondary Vocational Education

March 25 & 26th - Kahler Inn Town Motel

Lake Delton, Wisconsin

Tuesday, March 25

Room Designation - Heritage, South

7:30 - 9:00 p.m.	Problems & Barriers Encountered	Mandy

Wednesday, March 26

Room Designation - Heritage, South

9:00 - 9:30 a.m.	Coffee, Rolls & Introduction	Mandy
9:30 - 9:45 a.m.	Summary of Sept. 12 A-C	Halfin
9:45 -10:00 a.m.	Position statements - WBVTAE	Krogstad
10:00 -10:15 a.m.	Position statements - DPI	Falk
10:15 -11:30 a.m.	Report of Project Activities - Report of activities by districts - Intensified D.E. Workshop	Mandy Mandy/Stapleton Stapleton/Kowieski
11:30 - 1:00 p.m.	Lunch	
1:00 - 2:00 p.m.	A-C Discussion - any topic	Mandy
2:00 - 2:30 p.m.	Recommended activities for remainder of project	Mandy

"Have a good trip home"

Ad Hoc Advisory Committee for Articulation
of Secondary and Post-Secondary
Vocational Education

Minutes #2

The second Ad Hoc Advisory Committee meeting was held on March 25 and 26, 1975 at Kahler Inn Town Motel, Lake Delton, Wisconsin. The meeting of March 25 was held in the conference room, number 118 with the following members present:

Name	Institution
Bill Neverdahl	District #1 Technical Institute
Jerry E. Weiser	La Crosse Central High School
Jim LaBarre	UW-Eau Claire
David G. Goodman	UW-Whitewater
Cliff Zenor	WBVTAE-Madison
Ruel Falk	DPI-Madison
Clem Stapleton	UW-Stout
Russ Mandy	UW-Stout
Ed Kowieski	Delavan-Darien High School

The meeting was called to order at 7:45 by Mr. Russ Mandy, Articulation Project Director. Mr. Mandy welcomed the group and presented an overview of the project which included:

A. A definition of articulation.
B. Identification of structural framework of elements, i.e., institutions, agency and personnel.
C. A compendium of activities thus far implemented during the fiscal year with emphasis on the major goals as outlined in the objectives of the project.
D. The importance of the development of a model or strategy for curriculum articulation and had a general discussion between all members regarding the problems and barriers thus far identified curtailing implementation of articulation.

Active participation in a discussion of the problems and possible solutions followed the presentation by Mandy. It was further noted that a complete report and summary of the project activities would be presented at the meeting scheduled for Tuesday, March 26.

The meeting was adjourned at 9:15 p.m.

MEETING OF THE WHOLE
March 26

The meeting of March 26 was held in the Heritage-South meeting room at the Kahler Inn with the following members present:

Name	Institution
Don Zahn	DPI-Madison
Paul Speight	DPI-Madison
Al May	Menomonie Public Schools
Ken Huddleston	CESA 13, Waupun
Jerry Weiser	La Crosse Central High School
Vern Swenson	WBVTAE-Madison
Roland Krogstad	WBVTAE-Madison
Helen Scheve	WBVTAE-Madison
Cliff Zenor	WBVTAE-Madison
Bill Neverdahl	District 1 Technical Institute
David Goodman	UW-Whitewater
Agnes Jones	UW-Stevens Point
Jim LaBarre	UW-Eau Claire
Beatrice Petrich	CAVE, UW-Madison
Carol Anderson	Southwest Wis. Technical Institute
Ruel Falk	DPI-Madison
Ed Kowieski	Delavan-Darien High School
Clem Stapleton	UW-Stout
Harold Halfin	UW-Stout
Russ Mandy	UW-Stout

The meeting was called to order at 9:00 a.m. by Mr. Russ Mandy, Articulation Project Director. Dr. Halfin reviewed the minutes of the first advisory committee held on September 12, 1974 at the Board Office located at the Wisconsin Board of Vocational, Technical and Adult Education in Madison, Hill Farms Office.

The major results of the meeting are as follows:

A. To bring about articulation, there needs to be communications, coordination and cooperation at all levels.
B. The committee decided that articulation of the curriculum should be the primary focus of this project.
C. The objectives of the project were discussed individually.
D. The primary purpose of the project is to develop a model or models or strategies for implementation of curriculum articulation throughout the state.
E. The committee recommended that the project receive commitment from local superintendents, CESA directors and VTAE districts before proceeding to solicit support for participation in the articulation project.

F. It was recommended that each district be permitted to articulate areas of its choice. Be it general, or vocational education curriculum.

E. The committee recommended that the project look at all possible methods of articulation.

Mr. Krogstad was then introduced and asked to give a division statement on articulation of curriculum in respect to the perception of the WBVTAE. Mr. Krogstad noted that articulation is still a number one priority in Wisconsin. He felt that there was a need for continued efforts in the area of articulation with the prime objective to save the student time and money by improving his or her curriculum selection process, avoid duplication of courses, shortening his or her educational training time period. Mr. Krogstad then called attention to the future direction for articulation in the state and advanced specific objectives and activities for the fiscal year.

Open discussion primarily from participants from the WBVTAE followed. Mr. Vernon Swenson indicated that there is a need for teamwork and that real action and impact would be seen at the teacher level, and that the key word for articulation progress should be teamwork. Ms. Helen Scheve indicated that a competency-based program approach will provide for increased accountability. She also indicated that a one three-day workshop could be better than three one-day workshops, that a concentrated time block would be a more viable approach. Carol Anderson commented that "patience" is the key word and that it requires an evolution rather than a revolution to implement the articulation process. Mr. Cliff Zenor stressed that importance of an advanced standing policy in the VTAE district and that this appeared to be the most important key to the articulation process.

Mr. Ruel Falk from the Wisconsin State Department of Public Instruction was then introduced and asked to present a position statement reflecting the philosophy of that division. Mr. Falk felt that there was a need to secure commitment from administrators and to orient all educators to the concept of articulation. He further expressed the need that there should be a mutual agreement and leadership from the post-secondary and secondary level, however, leadership provided by the post-secondary level would perhaps be in a better position to coordinate activities by VTAE districts as the supporting agencies.

The ultimate goal for articulation of curriculum should be to impact the student and that the curriculum should be a continuum sequence through all levels of education.

Mr. Falk further indicated that a model should include not only the product as an answer to articulation but also the process of implementation. He further pointed out a need to solicit input from all elements involved, including industry and business and articulation should be not only from high school to vocational, technical and adult education but horizontal articulation as well. He further alluded to the possibility that there is

need to develop a plan now and to cause this plan to be implemented or the consequence may be that somebody will be telling us that it will be implemented through legislative process.

Paul Speight, from the Department of Public Instruction, added that there would be or should be different delivery systems depending upon local needs in respect to the implementation phase of curriculum articulation and that it is difficult to develop a program that will accommodate all local needs. A general discussion followed. These two statements and the following points were made:

A. The articulation model or strategies must be flexible enough to accommodate all needs.
B. It was felt that there is a need for curriculum in-service for secondary and post-secondary educators.
C. Curriculum is a tangible and key vehicle for implementing articulation, but individuals have the responsibility in the performance.
D. The committee felt that articulation should be a high priority for the state of Wisconsin.

A summary of project activities was presented and described by each VTAE district. In addition to this, the intensified distributive education curriculum workshop activities were reported on by Mr. Kowieski and Mr. Stapleton.

Reconvening after lunch, the question was then presented to the committee and from the committee as to whether if articulation was to continue, what would be the recommendations of the committee for funding. Suggested delivery vehicle were through the state coordinator, the proposal for fiscal year 76 as submitted by UW-Stout or through the State Board of Vocational, Technical and Adult Education.

A discussion followed and included comments such as, there was a need for continued articulation in the state of Wisconsin, and that perhaps one approach might be to provide prototypic programs in certain pilot schools. Another approach suggested was rather than concentrate on the product output of articulation, that more emphasis should be placed on the process involved in articulating within local districts. Another suggestion was if there was a need for in-service to involve teachers in curriculum development concepts.

A motion was then made by Ken Huddleston in that "the articulation project be continued through 1975-76, utilizing the Stout based articulation team or project leaders. The thrust of the project would be to continue to foster the pilot school concept with attention being given to pilot testing the product and process of articulation at the local district level." The motion was seconded by Bill Neverdahl, a vote was taken and all present were in favor of supporting this motion with no opposing comments.

The committee was then asked if there was a need for the committee to meet again, prior to the termination of this years articulation project. With the possibility that the project is now being considered for an extension of 60 days, which would move the termination date to August 31, 1975. The committee felt that there is a need to meet prior to the termination of the project to review the final report prior to final publication. Having concluded the business of the day, the committee decided that the next meeting should be in the third week of June or if the project is extended, the second week in August.

The meeting was adjourned at 2:30 p.m. Respectively submitted, Russ Mandy, Director.

AGENDA

Meeting of Ad Hoc Advisory Committee for Articulation

of Secondary and Post-Secondary Vocational Education

August 6-7, 1975 - Holiday Inn
Stevens Point, Wis.

Wednesday, August 6, 1975

Room Designation: University Room

8:30 - 9:00 p.m. Curriculum Articulation Workshop Outcomes: Report on Articulation Workshop-MPTI Area-Phil Stoll

Thursday, August, 7, 1975

Room Designation: University Room

9:00 - 9:15	Coffee, Rolls, and Introduction
9:15 - 9:30	Summary of March 25-26 Advisory Committee Meeting: Clem Stapleton
9:30 - 9:45	Overview of UW-Stout CREI Function and Activities: Ray Szymanski
9:45 -10:00	Report on Articulation Workshop-WITI Area: Art Cothran
10:00 -10:15	Report on Articulation Workshop-FVTI Area: Stan Spanbauer
10:15 -10:30	Break
10:30 -12:00	Review Final Report - Rough Draft: Advisory Committee
12:00 - 1:00	Lunch
1:00 - 3:00	Recommendations and Modifications of Final Draft: Advisory Committee
3:00 - 3:15	Summarize, Synthesize and Adjourn: Russ Mandy

"H A V E A S A F E T R I P H O M E"

Ad Hoc Advisory Committee For Articulation
of Secondary and Post-Secondary
Vocational Education

Minutes #3

The third Ad Hoc Advisory Committee meeting was held on August 6 and 7, 1975, at the Holiday Inn, Stevens Point, Wisconsin. The meeting of August 6 was held in the University Room with the following members and/or presenters present:

NAME	INSTITUTION
Phil Stoll	Moraine Park Technical Institute
Virgil Martinson	DPI-Madison
Paul Speight	DPI-Madison
Ruel Falk	DPI-Madison
Jerry Weiser	La Crosse Central High School
Clem Stapleton	UW-Stout
Russ Mandy	UW-Stout
Orv Gabriel	District One Technical Institute
Ron Kuen	Fox Valley Technical Institute
Jim LaBarre	UW-Eau Claire
Harold Halfin	UW-Stout
Ray Szymanski	UW-Stout

The meeting was called to order at 8:30 p.m. by Mr. Russ Mandy, Articulation Project Director. Mr. Mandy welcomed the group and noted that the purpose of the meeting was to: (1) disseminate information on articulation activities conducted during the year and (2) to hand out a copy of the final report for those present to begin review and critique.

Mr. Phil Stoll was then introduced and asked to give a report on the articulation workshop conducted in the Moraine Park-CESA #13 District. Mr. Stoll noted that an important part of their success was in the time they spent on planning and identifying the objectives of the workshop. He felt that Jim Bensen, acting as workshop leader, contributed greatly to their efforts. He further expressed a need to continue working toward articulation in all program areas.

Mr. Mandy handed out a copy of the final report to those members present.

Mr. Clem Stapleton was then introduced and asked to present an overview of the articulation model. He indicated that the model was comprehensive and included many ideas and developments from participants of the many articulation workshops conducted during the fiscal year 1975.

A discussion followed and included suggestions and questions relevant to the model as presented.

The meeting was adjourned at 10:05 p.m.

The meeting of August 7 was held in the University Room at the Holiday Inn with the following members and guests present:

NAME	INSTITUTION
Marvin Thompson	UW-River Falls
Virgil Martinson	DPI-Madison
Paul Speight	DPI-Madison
Ruel Falk	DPI-Madison
Jerry Weiser	La Crosse Central High School
Joe Pellegrin	Oshkosh Public Schools
Cliff Zenor	WBVTAE-Madison
Jim LaBarre	UW-Eau Claire
Art Cothran	Wisconsin Indianhead Tech. District
Ron Kuen	Fox Valley Technical Institute
Orv Gabriel	District One Technical Institute
Russ Mandy	UW-Stout
Clem Stapleton	UW-Stout
Harold Halfin	UW-Stout
Ray Szymanski	UW-Stout

The meeting was called to order at 9:00 a.m. by Mr. Russ Mandy, Articulation Project Director. Mr. Clem Stapleton reviewed the minutes of the second advisory committee meeting held on March 25 and 26 at the Kahler Inn in Lake Delton. A motion was made and seconded to approve the minutes as read with no dissenting votes cast.

Mr. Ray Szymanski, from UW-Stout, was introduced and reported on the function and purpose of the UW-Stout CREI (Center for Research and Educational Improvement).

Mr. Art Cothran, from the Wisconsin Indianhead Technical Institute, was then introduced and asked to give a report on the articulation workshops held in that district. He indicated that a key element to the success of their effort was the support and involvement of the LVEC from the area secondary and CESA's. Mr. Cothran felt that much more needs to be accomplished if a real impact is going to be realized. He indicated that WITI will be working on articulation of other programs during the coming year.

Mr. Paul Speight was introduced as the state level person to contact for articulation, as he was recently appointed the articulation project consultant for the fiscal year 1976. Mr. Speight indicated that there was a need for long range planning and commitment to articulation and suggested there is a need to continue to build on the articulation efforts of the UW-Stout project.

Mr. Ron Kuen was introduced and asked to report on the articulation activities conducted in the Fox Valley Technical Institute area. Mr. Kuen indicated that workshop participants actually conducted a task analysis and competency identification process. He further pointed out that their articulation workshop efforts focused mainly on the business occupations area but included discussion in other areas as well.

Mr. Stapleton was then introduced and asked to present an overview of the articulation model developed by the project staff. A copy of the final report was handed out and the committee was split into two groups to read the report. Group one was asked to review Chapters I, II and III and group two to review Chapters IV and V. The committee continued to review and react to the final report until 2:30 p.m. At that time the group reconvened and presented their suggestions, reactions and comments on the report to the project staff.

Mr. Mandy indicated that the report, including the committee's input, would be ready for distribution by the end of August.

Mr. Mandy thanked the committee members for their excellent input and service to the articulation project. Having concluded the business for the day, a motion was made to adjourn.

The meeting was adjourned at 5:00 p.m.

Respectively submitted,

Russ Mandy, Director
Articulation Project

UNIVERSITY OF WISCONSIN
STOUT
MENOMONIE WISCONSIN 54751

September 27, 1974

Dear (To all CESA Coordinators):

Subject: Telephone conversation on UW-Stout CVTAE "Articulation Project"

The University of Wisconsin-Stout Center for Vocational, Technical and Adult Education is currently conducting a research project entitled "Articulation of Vocational Education Between Secondary and Post-Secondary Levels in Wisconsin." This project is designed to expand and improve articulation of secondary and post-secondary vocational education programs. Enclosed is a copy of the objectives and proposed activities for your review.

The CESA organization is a recognized channel for communication between secondary and post-secondary personnel and can provide an excellent means for reaching the secondary school administrators in the state. As communication is the first step to any successful effort, we would appreciate the opportunity to present the articulation project to the administrators in your CESA area at your next (October or November) secondary school administrators' meeting. We would like to have approximately 30 minutes to (1) present the project's purpose, objectives and proposed activities; (2) identify existing or on-going curriculum articulation activities; (3) gain support for the project and identify schools interested in participating; and (4) discussion.

I would like to thank you in advance for your cooperation.

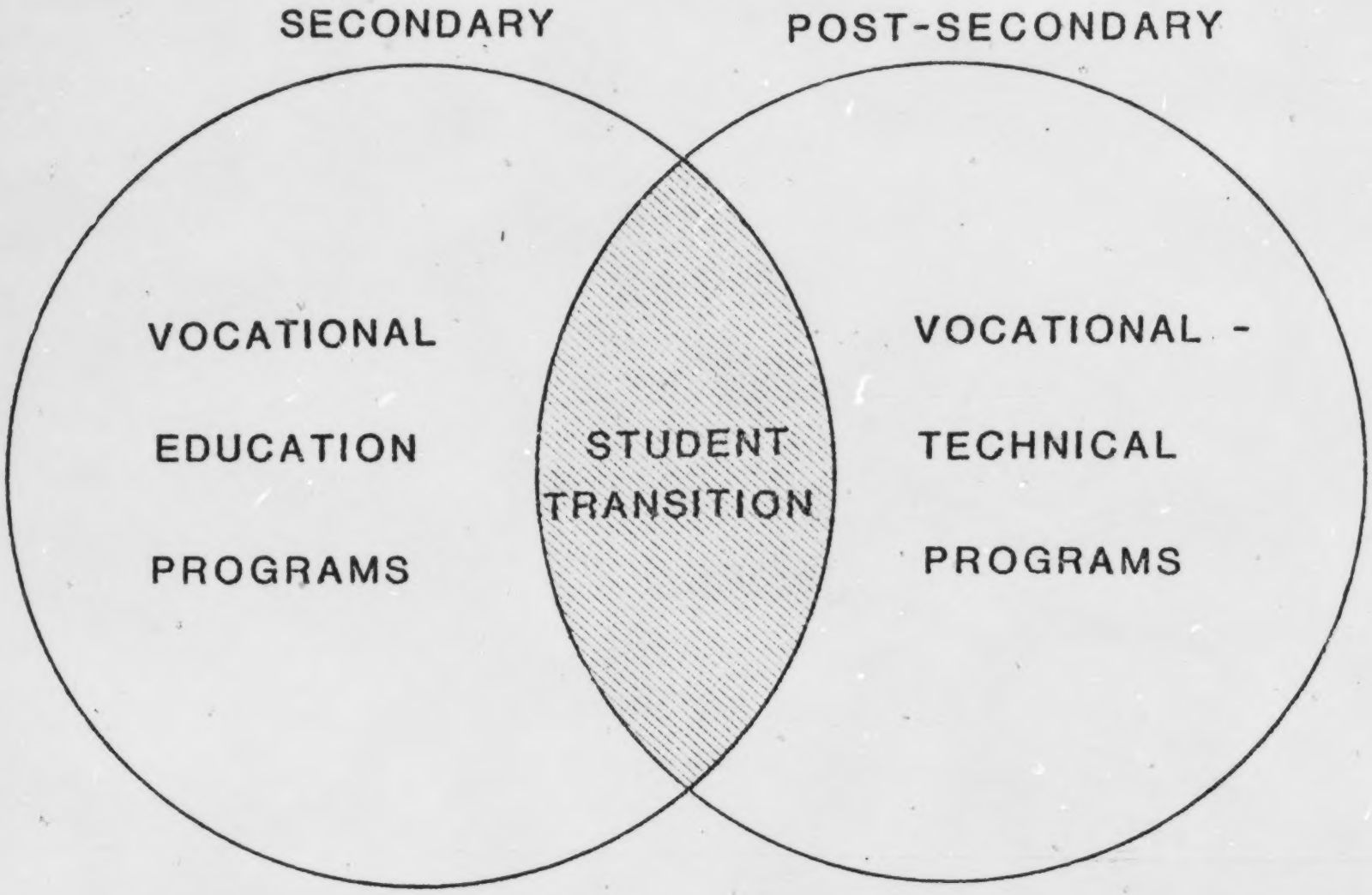
Sincerely yours,

Russell M. Mandy, Director
Articulation Project

lks

Enclosure

CURRICULUM ARTICULATION



E-2

CENTER FOR VOCATIONAL, TECHNICAL AND ADULT EDUCATION
Applied Arts Bldg. UW-Stout Menomonie, Wisconsin 54751

OBJECTIVES OF ARTICULATION PROJECT

The overall objective of the project is to expand and improve articulation of secondary and post-secondary vocational education programs within the state of Wisconsin. The more specific components, proposed activities and time schedule of this articulation project include:

Objectives:

1. Upgrade staff capabilities to expand and improve articulation of secondary and post secondary vocational education.

2. Identify taxonomies of competencies in selected occupational education areas appropriate to secondary and post-secondary levels.

3. Provide in-service education for selected post-secondary vocational educators regarding curriculum competency requirements and needs.

4. Provide in-service education for selected secondary level vocational educators regarding curriculum competencies, offerings and needs.

5. Provide in-service education for secondary and post-secondary educators upgrading competencies in diagnosing and analyzing curriculum articulation needs for selected secondary and post-secondary vocational education programs.

6. Revise, field test and validate selected articulated secondary - post-secondary vocational education programs.

7. Develop a model and field test strategies and framework for achieving articulation of selected secondary and post-secondary vocational education programs.

8. Develop strategies for implementing advanced status policies on the post-secondary VTAE levels.

9. Evaluate the model developed for articulation and make recommendations and provide procedures to implement transportability of the model throughout Wisconsin.

Proposed Activities:	Time Schedule
1. Formulation of project articulation ad hoc committee.	August - September, 1974
2. A series of 3 sets of 16 regional seminars and curriculum workshops.	October, 1974 - May, 1975
A. Regional one-day introductory seminar.	Nov.- Dec., 1974
1. Develop specifics that will be articulated.	Nov.- Dec., 1974
2. LVEC's and Assistant District Directors of Instructional Services meet.	Nov.- Dec., 1974
B. One-day curriculum workshops conducted in VTAE districts to compare secondary & post-secondary vocational curriculums.	December - January, 1974
C. Regional one-day Summary Seminars conducted to synthesize accomplishments in each curriculum area.	April - May, 1974
3. Review of ERIC and Regional and state curriculum laboratories and competency lists.	August - November, 1974
4. Provide criteria for district articulation committees.	November, 1974
5. Revised curriculum presented to appropriate occupational advisory committees.	January - February, 1975
6. Field testing revised curriculum.	Feb.- March, 1975
7. On-site visits by project staff members & consultants.	Feb.- March, 1975
8. Project staff will develop diagrams and flow charts, with components, inputs, operations, procedures, relationships, outputs, schedule of accomplishments, etc., for the porposed articulation model(s).	April - May, 1975
9. Evaluation of the project and recommendations for State-Wide implementation of the model(s) developed.	May - June, 1975
10. Complete final report and summaries.	June 30, 1975

State of Wisconsin \ BOARD OF VOCATIONAL, TECHNICAL & ADULT EDUCATION

EUGENE LEHRMANN
State Director

4802 SHEBOYGAN AVENUE
MADISON, WISCONSIN 53702

October 14, 1974

Dr. Richard J. Brown, District Director
Nicolet VTAE District
P.O. Box 518
Rhinelander, Wisconsin 54501

Dear Dr. Brown:

The purpose of this letter is to invite you and/or instructional services representatives to a portion of the next CESA 2 meeting of local school district superintendents to commence coordination of involvement in an articulation project.

The project will be presented in the Community Center in the old Minocqua Elementary School two blocks east of Highway 51 on Wednesday, November 6 at 11:00 a.m.

The representative multi-agency ad hoc committee for the project recommended that a briefing of the project be held for all top level administrators to familiarize them with the objectives and activities of the project which would assist them in making decisions regarding their degree of participation, identification of curriculum areas to be studied, and selection of staff to participate. Duplicative meetings may have to be attended or coordination be made with individual school districts.

Several studies, and other indicators, point to the need for greater articulation of secondary and postsecondary vocational education programs to ensure an efficient path for each student's advancement in learning.

Wisconsin is fortunate in receiving a $50,000 grant under Part F, EPDA to further expand and improve articulation of secondary and postsecondary vocational-technical education curriculum. The curriculum to be considered will be mutually selected in each of the VTAE district areas. This project is being administered through UW-Stout with Mr. Russell Mandy as the project director.

The project calls for involvement of 150 secondary and 150 postsecondary teachers and/or other staff to participate in a series of workshops throughout the State. Three one-day workshops will be conducted in each of the 16 VTAE District areas before June 30, 1975 for an average of 8-12 secondary and 8-12 postsecondary staff members in each area.

The purposes of the workshops are to familiarize participants with the latest research and other district and state developments in articulation and to mutually: (1) select a framework for curriculum articulation, e.g., competency-based education approach, cluster guide approach, etc.; (2) diagnose and analyze curriculum articulation problems and needs; (3) compare selected secondary and postsecondary vocational-technical curriculum; (4) develop recommendations and propose tentative curriculum revisions; (5) develop recommendations for implementation, e.g., student orientation, guidance, counseling, recruitment, assessment of competencies, advanced status, mutual curriculum development procedures, etc.

It is anticipated that results of the workshops will be reviewed by appropriate local advisory committees and other staff prior to development of final drafts.

Funds are available for reimbursement of costs for meals and travel of the workshop participants. Currently no funds are available in the project for reimbursement of expenses for employing substitute teachers. In terms of EPDA funds available, local assistance is needed to help support the project. Perhaps certain staff could be released during regular in-service days or during convention times.

It is apparent that articulation of vocational-technical curriculum has advanced extensively in certain geographical areas and in certain subject fields. On the other hand, many areas are yet to be explored. The intent of the project is to allow flexibility for local district areas to assess their current progress, identify articulation needs, and proceed from where they are.

Immediately following the CESA meeting, it is hoped that through involvement of secondary level educators, the VTAE District Directors or CESA administrators will assume a leadership role in causing the following to mutually happen at the local levels: (1) Identification of existing/on-going articulation efforts; (2) Identification of school districts to be involved; (3) Selection of the vocational-technical or related curriculum to be studied and articulated; (4) Selection of staff to participate; and (5) Time and location of first workshop during fall of 1974 for approximately 8-12 secondary staff and 8-12 postsecondary vocational staff.

All of the above five items of information should be forwarded as soon as possible to:

Mr. Russell Mandy
Articulation Project
UW-Stout
Menomonie, Wisconsin 54751

If you already have meetings scheduled, please notify Mr. Mandy so that activities can be incorporated into the development of the articulation model and can be shared with other districts.

Your cooperation is greatly needed in this important statewide effort to expand, advance, and improve communication, coordination, cooperation and articulation of secondary and postsecondary vocational-technical education curricula in Wisconsin.

If you have any questions please contact Roland Krogstad of our office.

Sincerely,

Eugene Lehrmann

Eugene Lehrmann
State Director

EL/RK/mt

cc: CESA Director
Russell Mandy

UNIVERSITY OF WISCONSIN
STOUT
MENOMONIE WISCONSIN 54751

January 13, 1975

Dear (All CESA Coordinators):

SUBJECT: Articulation Project--off to a good start

We have now completed the initial communication phase of the project and are beginning to move into the implementation phase in each of the 16 VTAE Districts.

Plans for the first workshop (some districts have already held their first meeting) and programs to be articulated have been identified in several VTAE district areas. Some of the programs tentatively selected at this time include: home economics, mathematics, welding, machine tool, business, metal fabrication, auto mechanics, drafting and agriculture.

We would like to express one appreciation for your fine spirit of cooperation. I believe through our mutual efforts we will be able to provide for continuity of secondary and post-secondary programs that will improve the overall goal, that is, to provide the student a learning experience with the least amount of road blocks as possible.

I am looking forward to working with you during this year regarding articulation.

Sincerely,

Russell Mandy

lks

UNIVERSITY OF WISCONSIN
STOUT
MENOMONIE WISCONSIN 54751

January 20, 1975

Dear (To All VTAE Contact Persons):

With the second half of the school year now upon us, we are using this letter as a means to touch base with you to identify your articulation planning and progress to date. We have enclosed a simple form for you to fill out and return which identifies:

1. The curriculum area(s) you have selected to study,
2. Staff to participate and,
3. Time and location of the workshops.

Please complete and return the questionnaire by January 31, 1975 in order to allow an early accumulation and dissemination of the responses on a state-wide basis.

In order to assist in state-wide coordination of efforts, and to avoid inter-district duplication of curriculum areas to be studied, and to bring the latest curriculum articulation research and developments from other districts, we would like the opportunity to participate in your workshops.

Enclosed is a suggested agenda for the first workshop and possible major themes for the second and third meetings. Details for the second and third meetings can be developed with input from the first meeting. Through past experience, we have found that specific curriculum development strategies should be defined for participants so that they might move from the discussion phase to the implementation phase prior to the actual start of the curriculum development activities (in your first or second meeting).

We suggest that workshop participants be asked to bring appropriate curriculum materials, e.g., course outlines, study guides, reference lists, competency lists, etc. In the near future, a sample list of curriculum materials in the curriculum areas you indicated to be studied will be mailed to you.

We would like to take this opportunity to offer any assistance with your workshops, meetings, curriculum development, etc., appropriate from myself as well as the articulation project consultants and/or resources.

Sincerely,

Russ Mandy, Director
Articulation Project

Clem Stapleton, Research Specialist
Articulation Project

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Enclosures

Name _____ VTAE District _____

Title _____ Date _____

CURRICULUM ARTICULATION PROJECT

Articulation of Mutually Selected Secondary And Post-Secondary Vocational-Technical Education Curriculums in Wisconsin

	Secondary	Post-Secondary
1. Mutually selected Curriculum Area(s) to be studied and articulated: A. Course Number and Title:		
2. Staff to Participate: A. Name/Area/School		

3. Time and Location of Workshop(s):
   A. First Workshop Date: _____ Place: _____
   B. Second Workshop Date: _____ Place: _____
   C. Third Workshop Date: _____ Place: _____

4. Please indicate if you wish to have Stout Articulation project staff participate.
   Yes ____ No ____

5. Suggestions:

Suggested Agenda and Major Theme
For Curriculum Articulation Workshop(s)

FIRST MEETING

CURRICULUM ARTICULATION WORKSHOP

Theme: Introduction to Articulation

1:00 p.m. - Welcome District Director

1:10 p.m. - Orientation to Curriculum Articulation (Objectives, Purpose of Workshop, etc.)

1:45 p.m. - Review of Curriculum Materials

2:15 p.m. - Group Discussion (Specific Articulation problems, concerns, activities, strategies, priorities, etc.) (We would like to get a list of these for our model development.)

3:00 p.m. - Reconvene--Break into small groups (Participants should bring to workshop: curriculum outlines, textbooks, teacher manuals, student manuals, list of resources, identification of equipment and facilities capabilities, etc.)

5:15 p.m. - Dinner

6:30 p.m. - Value analysis (exercise designed to get participants acquainted)

6:45 p.m. - Small Group (identify student outcomes, relate to world of work, levels of learning, etc.)

7:45 p.m. - Reconvene - small group progress report

8:00 p.m. - Critique of workshop (suggestions, future plans, concerns, planned activities between workshop)

9:00 p.m. - Adjorn

SECOND MEETING

Theme: Analyze Curriculum Articulation Needs:
Develop and/or Identify Articulation Strategies

(Presentation on specific curriculum development strategies)

Participants should be encouraged to work on curriculum between second and third workshops.

THIRD MEETING

Theme: Summary Seminar: Synthesize Accomplishments and Plan for Tentative Future Articulation Activities

"DEFINITION"

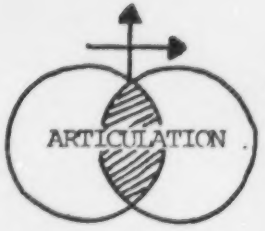
INSTITUTIONS

COMMUNICATION

COORDINATION

COOPERATION

PERSONNEL



"Communication Between Faculties, Programs, Institutions and Other Agencies"

--- Articulation agreements at local, regional, state, federal levels.

--- Conflicting philosophies

--- Various occupational programs, course titles, description and content.

"Coordination of Programs"

--- Sharing equipment, facilities and faculty

--- Duplication of course offerings

--- Curriculum development

--- Advisory committee

"Cooperation Plans"

--- Developing and implementing programs

--- Admission policies

--- Transfer policies

--- Placement services

--- Public relations

--- Counseling services

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Competency-based Research Directory

It became apparent that there may be duplicative efforts taking place throughout the state on the part of vocational educators working towards articulation systems utilizing competency-based instructional methods. It became a question of "Who" was currently performing such research.

A state-wide directory of the names, addresses and telephone numbers of such persons performing research was compiled.

The size and volume of this directory precludes the inclusion of a sample of the directory in this final report. However, copies are available for further distribution from any of the below sources:

Mr. Roland Krogstad - Consultant
Vocational Education Research
Hill Farms State Office Building
4802 Sheboygan Avenue
Madison, Wisconsin 53702

Mr. Ruel Falk - Director
Bureau for Career & Manpower Development
126 Langdon Street
Madison, Wisconsin 53702

Dr. Orville Nelson
Center for Vocational Technical & Adult Education
University of Wisconsin - Stout
Menomonie, Wisconsin 54751

Meetings and Activities of the Articulation Project

Date	Place	Meeting
Sept. 15, 1974	Stout	Harold, Orv - Formulation of Ad Hoc Advisory Committee
Oct. 4, 1974	Madison	Russ, Harold - Meeting with VTAE Instructional Services Committee: presented project to subcommittee
Oct. 7, 1974	Stout	Russ - Meeting with Dr. Pat Wagner, Career Ed. Coordinator to discuss project objectives and proposed activities
Oct. 10, 1974	Crivitz	Russ - CESA #2, Nicolet VTAE
Oct. 8, 1974	Stout	Russ - Meeting with graduate student Tim Brown; discussed project
Oct. 14, 1974	Stout	Russ - CVTAE staff evaluation meeting
Oct. 15, 1974	Racine	Roland - LVEC-Coordinator meeting CESA #18 Presented project goal and objectives
Oct. 17, 1974	Ashland	Russ - CESA #1, Wisconsin Indianhead District Presented project to CESA #1 Superintendents, Wisconsin Indianhead Technical Institute (Dick Roger)
Oct. 18, 1974	Appleton	Orv - VTAE Instructional Services Committee Presented project to committee
Oct. 21, 1974	Janesville	Roland - CESA #17
Oct. 22, 1974	Cleveland	Russ - CESA #10, Lakeshore Technical Institute Presented project to CESA #10, Superintendents, Lakeshore Technical Institute (Ed Falk)
Oct. 23, 1974	Eau Claire	Russ - Meeting with District One staff Presented overview of project
Oct. 24, 1974	Fennimore	Roland - CESA #14, Southwest Technical Institute; Present project to local school superintendents, CESA #14-LVEC, Southwest Technical Institute (Dick Duffy)
Oct. 25, 1974	Milwaukee	Roland - CESA #19, Milwaukee Area Technical Institute; Presented project overview
Oct. 31, 1974	Kewaskum	Russ - CESA #13 Presented project to CESA #13-LVEC planning committee

Date	Place	Meeting
Nov. 6, 1974	Minocqua	Russ - CESA #2, Nicolet - local school superintendents; presented project overview
Nov. 6, 1974	Cumberland	Harold - CESA #4, Wisconsin Indianhead Technical District; presented project overview
Nov. 6, 1974	Waupun	Roland - CESA #13, Moraine Park Technical Institute; presented project overview
Nov. 12, 1974	Green Bay	Russ - CESA #9, Northeast Wisconsin Technical Institute, local school superintendents; presented project overview
Nov. 12, 1974	Baldwin	Orv - CESA #5, District One Technical Institute and local school superintendents; presented project overview
Nov. 14, 1974	Stevens Point	Russ - CESA #7, North Central Technical Institute, Mid-State Technical Institute, local school superintendents; presented project overview
Nov. 15, 194	Menomonie	Russ - Vocational Education Graduate Seminar Stout Graduate Course Presented project overview
Nov. 18, 1974	Burlington	Roland - CESA #18, Gateway Technical Institute Presented project overview
Nov. 18, 1974	La Crosse	Russ - State Career Education Consortium Presented project overview to State Career Ed. leaders
Nov. 19, 1974	Chippewa Falls	Russ - CESA #6, District One Technical Institute, local school superintendents; presented project overview
Nov. 20, 1974	Madison	Russ - Madison Area Technical College, CESA #15; first articulation workshop
Nov. 21, 1974	Portage	Russ - CESA #12, Madison Area Technical College (now show), local school superintendents; presented project overview
Nov. 21, 1974	Waukesha	Roland - CESA #16, Waukesha County Technical Institute, local school superintendent; presented project overview
Dec. 3, 1974	Stout	Russ - A Stout student, Doug Summer, stopped in for information on articulation
Dec. 5, 1974	Eau Claire	Russ - Meeting at District One Technical Institute with Bob Birchler to plan for articulation activities

Date	Place	Meeting
Dec. 9, 1974	Stout	Russ - Met and discussed project activities with Pat Wagner
Dec. 11, 1974	Eau Claire	Russ - Attended first articulation workshop at District One Technical Institute
Dec. 13, 1974	Stout	Russ - Meeting with Jim Bjournerud to discuss project progress
Dec. 17, 1974	Appleton	Russ - Meeting with CESA #8-Bill McCarthy to present project overview
Dec. 17, 1974	Appleton	Russ - Meeting with Stan Spanbauer, Fox Valley Technical Institute to plan for articulation activities in Fox Valley Technical Institute
Dec. 18, 1974	Stout	Russ - Meeting with graduate student, Dan Dray, to discuss articulation concept
Dec. 18, 1974	Eau Claire	Russ - Meeting to plan activities at District One Technical Institute
Dec. 19, 1974	Stout	Russ - Meeting with graduate student, Ren Park, to discuss articulation project
Jan. 3, 1975	Madison	Russ/Clem - Meeting with Wisconsin Board of Vocational, Technical and Adult Education and Department of Public Instruction for Project visability and curriculum materials
Jan. 3, 1975	Portage	Russ/Clem - Communications meeting with CESA #12
Jan. 14, 1975	Stout	Russ/Clem - Meeting with Department of Public Instruction Consultant, Dick Kitzman to discuss project objectives and goals
Jan. 23, 1975	Wausau	Russ/Clem - Attended the Career Education Consortium meeting and exchanged information and ideas
Jan. 29, 1975	Stout	Russ - Meeting with graduate student, Gene Refior, and discussed articulation concept
Jan. 24, 1975	Waukesha	Russ/Clem - First articulation workshop with CESA #16-LVEC and Waukesha County Technical School personnel to discuss strategies for articulation
Jan. 29, 1975 Jan. 30 Jan. 31	Waukesha	Clem - Articulation planning meetings with Waukesha, Blackhawk, Gateway and Fennimore Technical Districts

Date	Place	Meeting
Jan. 30, 1975	Lomira	Russ/Jim Bensen - Conducted first articulation workshop in the Moraine Park-CESA #13 District
Feb. 3, 1975	La Crosse	Clem - Planning meeting with Western Wisconsin Technical Institute
Feb. 5, 1975	St. Paul	Russ/Orv/Clem - Meeting with University of Minnesota, Minnesota Department of Public Instruction, Wisconsin Department of Public Instruction to discuss articulation, exchange ideas and information
Feb. 10, 1975	Stout	Russ - Sue Christianson, a grad. student from Neal Prichard's class stopped in for some information on articulation, Home Ec. area
Feb. 11, 1975	Eau Claire	Russ - Attended meeting on articulation at District One Technical Institute
Feb. 12, 1975	Menomonie	Russ/Clem - Attended a "lifestyle workshop" at Stout
Feb. 13, 1975	Menomonie	Russ/Clem - Attended Stout's annual Guidance Conference and presented articulation project
Feb. 14, 1975	Rice Lake	Clem/Gene Flug - Conducted first articulation workshop at Wisconsin Indianhead and CESA #4
Feb. 19, 1975	Fennimore	Roland Krogstad - Meeting with Southwest Technical District and CESA #14 to present overview of project and solicit support
Feb. 20, 1975	Menomonie	Russ - Presented project at Graduate Student Seminar
Feb. 25-27, 1975	Elk Horn	Russ/Clem - Conducted an intensified articulation workshop in the Distributive Education area
March 4, 1975	Beloit	Clem - Attended a planning session at Blackhawk Technical District
March 4, 1975	Milwaukee	Russ - Attended first articulation meeting conducted in the Greater Milwaukee Metropolitan area at Milwaukee Area Technical College
March 6, 1975	Lomira	Russ/Jim Bensen - Conducted the second articulation workshop in the Moraine Park Technical Institute, CESA #13 area
March 10, 1975	Marinette	Pat Humphreys - First articulation workshop with Northeast Technical and CESA #3 secondary educators

Date	Place	Meeting
March 11, 1975	Stout	Russ/Jim Bensen - Follow-up evaluation meeting of March 6th meeting in Lomira
March 12, 1975	New Richmond	Clem - Attended planning meeting for next Wisconsin Indianhead-CESA #4 workshop
March 17, 1975	Appleton	Stan Spanbauer/Russ Mandy - Articulation meeting held at Fox Valley Technical Institute
March 18, 1975	Stout	Russ - Presented articulation project to graduate class at Stout
March 19, 1975	Madison-Waunakee H.S.	Harold - Attended articulation workshop with Madison Area Technical College-CESA #12 educators
March 20, 1975	Ashland	Russ/Rich Peter - Conducted first articulation workshop held between Wisconsin Indianhead Technical Institute and CESA #1 at the Ashland Campus
March 26, 1975	Appleton	Dick Gebhart - Second articulation workshop held between Fox Valley Technical Institute and CESA #8
March 25-26	Wisconsin Dells	Russ/Clem/Harold - Second Advisory Committee meeting for the articulation project
March 27, 1975	Beloit	Clem - Attended an Articulation Planning Committee meeting
April 2, 1975	New Richmond	Clem/Gene Flug - Conducted second articulation workshop held between Wisconsin Indianhead Technical Institute and CESA #4 and 5
April 9, 1975	Eau Claire	Russ/Dick Gebhart - Attended an articulation workshop and presented curriculum articulation strategies and concerns
April 10, 1975	Lomira	Russ/Jim Bensen - Conducted third articulation workshop held between Moraine Park Technical Institute and CESA #13 educators
April 10, 1975	Nicolet	Clem/Ray Szymanski - Participated in first articulation workshop to overview goals and establish direction
April 14, 1975	Milwaukee	Russ - Participated in second articulation workshop held between Milwaukee Area Technical College and Milwaukee secondary educators
April 18, 1975	La Crosse	Clem - Reported on progress of the project to the VTAE Instructional Services Committee

Date	Place	Meeting
April 23, 1975	Appleton	Clem/Russ/Judy Lambrecht - Participated in competency-based third articulation workshop in the business occupations area between Fox Valley Technical Institute and CESA #8 educators
April 25-26	Wisconsin Dells	Clem/Russ - Held a follow-up workshop for the Distributive Education instructors involved in the intensified articulation workshop at Elk Horn. Developed a draft for a project proposal for fiscal year 1976
May 1-2, 1975	La Crosse	Clem/Russ - Attended WAVAE Convention; Clem presented the articulation project at a session in the distributive education area
May 5-6, 1975	Beloit	Clem/Deena Allen - Attended and presented articulation strategies at a workshop held between educators from the Blackhawk-CESA #17 area. The workshop consisted of participants from several program areas.
May 7, 1975	Waukesha	Clem/Deena - Presented articulation at a workshop held between educators from Waukesha County Technical Institute-CESA #16 area. This workshop consisted of participants from several program areas.
May 6-8, 1975	Rhinelander	Russ - Presented articulation at the final workshop held between educators from Nicolet College and secondary CESA #2 area. The workshop consisted of participants representing the Industrial Education, Business and English areas.
May 9-10, 1975	St. Croix Falls	Clem/Gene Flug - Held third articulation workshop between educators from Wisconsin Indianhead Technical Institute and CESA #4 and 5 area. Worked on automotive-small engine areas using DACUM approach
May 13, 1975	Milwaukee	Russ - Attended career education conference; Ken Hoyt was keynote speaker
May 16, 1975	Waupun	Russ/Clem - Attended Moraine Park Technical Institute-CESA #13 articulation committee planning and evaluation meeting. Presented suggestions for future directors.
May 19, 1975	Milwaukee	Russ - Attended third and final articulation workshop held between Milwaukee Area Technical College-CESA #19 secondary educators

Date	Place	Meeting
May 29-30, 1975	Kenosha	Clem/Gene - Conducted articulation workshop consisting of educators from the CESA #18-Gateway Technical Institute area. The DACUM and competency-based curriculum development strategies were presented.
June 3-4, 1975	Stout	Russ/Clem - Presentation on articulation to four sections of Professional Growth Week
June 3-4, 1975	Stout	Clem - Presentations on three co-op education and one articulation to PGW participants

UW-Stout
Articulation Project
FY 1975

CURRICULUM ARTICULATION

QUESTIONNAIRE

On the right side of each item below CIRCLE the one symbol that most closely approximates the extent to which you agree or disagree with the way the statements describe your feelings or conditions about the workshop.

If you STRONGLY AGREE,	Circle:	SA
If you AGREE,	Circle:	A
If you are UNDECIDED,	Circle:	U
If you DISAGREE,	Circle:	D
If you STRONGLY DISAGREE,	Circle:	SD

1. The articulation workshop(s) helped upgrade staff capabilities to expand and improve articulation of secondary and post-secondary vocational education.	SA	A	U	D	SD
2. The workshop(s) helped identify taxonomies of competencies in selected occupational education areas appropriate to secondary and post-secondary levels.	SA	A	U	D	SD
3. Even after they have participated in a workshop, participants will wish to have competent consultative services readily available.	SA	A	U	D	SD
4. There is need to prepare staff members of secondary and post-secondary school systems to assume responsibilities for aiding articulation in regular classroom curriculum.	SA	A	U	D	SD
5. The workshop(s) provided in-service education for secondary and post-secondary educators to up-grade competencies in diagnosing and analyzing curriculum articulation needs for selected secondary and post-secondary vocational education programs.	SA	A	U	D	SD
6. Competency based instruction is the delivery vehicle that will cause effective curriculum articulation.	SA	A	U	D	SD
7. The cluster approach is the delivery vehicle that will cause effective curriculum articulation.	SA	A	U	D	SD
8. We really didn't have enough time to work at our writing tasks.	SA	A	U	D	SD

25. I feel that my background preparation was sufficient for me to benefit from the activities of the workshop(s). SA A U D SD

26. I feel that my time and efforts were appropriately spent while participating in the workshop(s). SA A U D SD

27. I was adequately aware and informed as to the purposes of the workshop(s) prior to my arrival. SA A U D SD

28. Workshop(s) similar to this one would be beneficial to others. SA A U D SD

29. I believe I can successfully encourage and assist others in my school system in understanding and undertaking new approaches for articulation of secondary and post-secondary programs. SA A U D SD

30. I gained an appreciable amount from the opportunity to interact with other participants. SA A U D SD

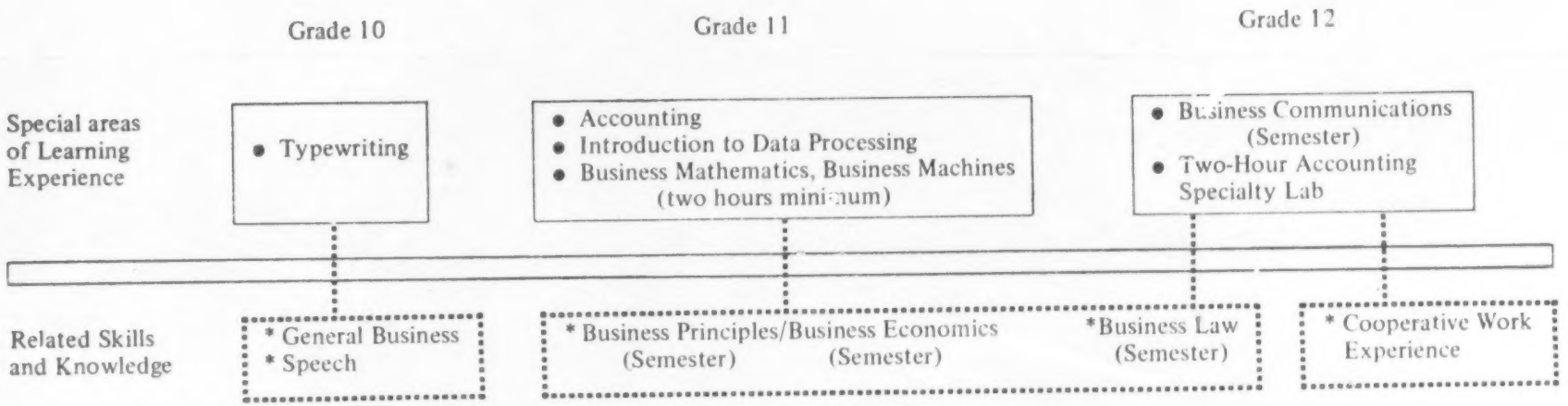
31. My general evaluation of this workshop is that it was worth attending. SA A U D SD

32. What additional assistance, competencies, materials, etc., would you need to further articulate your program?

33. If you have additional comments you believe would help persons planning future workshops of this type, please record them in the space that follows.

9.	At the end of the first meeting I clearly understood what I was to accomplish.	SA	A	U	D	SD
10.	The workshop established a good balance between individual and group work toward materials production and process identification.	SA	A	U	D	SD
11.	The workshop staff made itself personally available to me.	SA	A	U	D	SD
12.	My personal interactions with staff members were an important part of the workshop.	SA	A	U	D	SD
13.	I needed more time than I got for writing.	SA	A	U	D	SD
14.	A series of (1) day workshop(s) is sufficiently long to provide adequate learning for participants.	SA	A	U	D	SD
15.	Consultative services were sufficiently available and constructive.	SA	A	U	D	SD
16.	Presentations by consultants were well organized and allowed sufficient flexibility to meet the purposes of the participants.	SA	A	U	D	SD
17.	The Stout articulation project staff should work more closely with local district articulation teams.	SA	A	U	D	SD
18.	The Stout articulation project should work with only 4 to 6 technical centers and in a more concentrated manner.	SA	A	U	D	SD
19.	The Stout articulation project staff members represent a third party and consequently do not understand the problems associated with secondary as well as post-secondary staffs.	SA	A	U	D	SD
20.	I experienced teaching techniques which were new to me.	SA	A	U	D	SD
21.	Almost all workshop participants tried hard to contribute to workshop success.	SA	A	U	D	SD
22.	Workshops similar to this one would be beneficial to me in the near future.	SA	A	U	D	SD
23.	In order to be most meaningful, a follow-up workshop or program should be available to me.	SA	A	U	D	SD
24.	I might have accomplished more if the workshop had been more tightly organized.	SA	A	U	D	SD

MODEL CURRICULUM PATTERN



J-1

- **Special areas of learning experience.** In order to offer a comprehensive accounting cluster program, the identified special areas of learning experience should be offered at the designated grade levels.

- * **Related skills and knowledge.** Depending on the individual circumstances of each school, it is recommended that these related skills and knowledge areas be included in the accounting cluster program whenever it is possible. If the high school curriculum prevents offering such courses as business principles and management, business economics, and business law separately, these topics could be included as part of the two-hour accounting specialty lab.

CURRICULUM PATTERN

Grade Levels

1-6	7-8	9	10	11	12
		SOCIAL RESPONSIBILITY DEVELOPMENT			

Ability to function as a citizen in: Community, State, and Nation
Interaction with Environment
On streets and highways
Consumer of Goods and Services

PERSONAL DEVELOPMENT

Reading ability, listening ability, analyzing ability, speaking ability, writing ability, computing ability
Scientific and Technical
Healthy Body and Mind
Ability to continue learning

CAREER DEVELOPMENT

Includes programs in the elementary grades, where students will:
- Develop awareness of the many occupational careers available.
- Develop awareness of self in relation to an occupational career role.
- Develop foundations for wholesome attitudes toward work and society.
- Develop attitudes of respect and appreciation toward workers in all fields.
- Make tentative choices of career clusters to explore in greater depth during mid-school years.

Programs in the mid-school years usually grades 6-10, where students will:
- Explore key occupational areas and assess personal interests and abilities.
- Become familiar with occupational classifications and clusters.
- Develop awareness of relevant factors to be considered in decision-making.
- Gain experience in meaningful decision-making.
- Develop tentative occupational plans and arrive at a tentative career choice.

Career cluster programs at grades 11-12, where students will:
- Acquire occupational skills and knowledge for entry-level employment and/or advanced occupational training.
- Relate a majority of high school experiences to generalized career goals.
- Develop acceptable job attitudes.
- Be involved in cooperative work experience and have opportunities to join vocational youth organizations.

NOTE: These competencies are designed to comply with the requirements for high school graduation as adopted by the Oregon Board of Education September 22, 1972.

CURRICULUM TUNE-UP

MODULE 2

LEARNING UNIT (2.2) The Starting System

LEARNING OBJECTIVES	LEARNING ACTIVITY	MATERIALS	TEST
2.21 The student will demonstrate an ability to identify the parts and explain the operation of the starting system.	Lecture/discussion Individual study Peer group review Programmed text	Training charts Service manuals Repair manuals A-V Materials: M15; B14, B15, B16; F10, F11, T11, T12, T17, T18	CT 2.21
2.22 The student will demonstrate an ability to test and diagnose the starting system using the following tests: -starter draw test -starter load test -insulated circuit voltage drop test -ground circuit voltage drop test	Lecture/demonstration Guided student practice Peer group review	Live starter system Service manuals Repair manuals Training charts Hand tools Starter battery tester BST II Sun Tester Instructional manual Battery charger	CT 2.22
2.23 The student will demonstrate an ability to overhaul the starting system with attention to: -Removal and renewal of starter brushes -Reconditioning of commutator -Removal and renewal of starter drives -Removal and renewal of bushings	Lecture/demonstration Guided student practice	Live starter system Service manuals Repair manuals Parts manuals Hand tools Bushing installers Growler Series test lamp Undercutter Soldering iron Fender covers, jack, creeper	CT 2.23

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